FMC FoodTech

Fresh'n SQUEEZE®

Multi-Fruit Juicer FMC FoodTech

Operator & Service Manual
Multi-Fruit Juicer

April 2007

Operator & Service Manual
Multi-Fruit Juicer

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FMC FoodTech
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Important Safety Information

You can help prevent personal injury and/or property damage.

Please read this manual carefully before operating the FMC FoodTech Extractor. DO NOT attempt any operation until you understand exactly how the machine functions.

If uncertainty remains after studying this manual, please contact:

FMC Technologies Inc.
FMC FoodTech
400 Fairway Avenue
Lakeland, FL 33801
(863) 683-5411

or

The local FMC FoodTech service representative in your country.

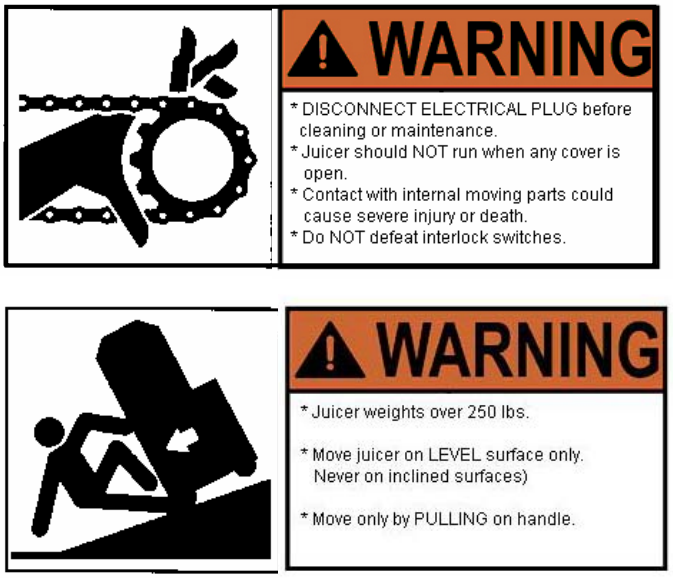
We're here to help. With proper handling, the FMC FoodTech Juice Extractor will provide safe, efficient and convenient service for years to come.

Safety Labels

The safety labels shown below appear on the Juice Extractor. They provide essential instructions on how to avoid possible hazards.

Please, for your safety: FOLLOW THOSE INSTRUCTIONS AT ALL TIMES.

Should the Juicer safety labels become damaged or unreadable, contact FMC FoodTech for replacement labels.


WARNING
* DISCONNECT ELECTRICAL PLUG before cleaning or maintenance.
* Juicer should NOT run when any cover is open.
* Contact with internal moving parts could cause severe injury or death.
* Do NOT defeat interlock switches.
WARNING
* Juicer weights over 250 lbs.
* Move juicer on LEVEL surface only. Never on inclined surfaces)
* Move only by PULLING on handle.

Safety Instructions

Carefully review the following safety instructions.
Make them a habit when using the FMC FoodTech Juice Extractor.

1. If extractor continues to run when any access cover is open, interlock switch is defective. **Turn Juicer off immediately.** Call for service.
2. Prevent unauthorized access to Extractor by locking all covers with supplied key.
3. Prevent unauthorized operation of Extractor by placing electrical plug inside cart door.
4. **NEVER** attempt to make any safety device inoperative.
5. **NEVER** operate or perform maintenance or repair work on Extractor when taking any kind of drug or sedative, when under the influence of alcohol, or when fatigued.
6. **ALWAYS** check adjustment of all nuts, bolts, and screws after installation, repair, or periodic maintenance.

Technical Specifications

Fruit size: 2 1/2" to 3 3/4" diameter (6.5 cm to 9.5 cm)
Oranges — FL:·····125 to 50 count
Oranges — CA:·····138 to 48 count
Grapefruit — FL: ····· 56 to 48 count
Hopper capacity: ····· 40 lb. (1 carton) (18 kg)
Reservoir capacity:····· 3 1/2 gal. (1 carton) (13.2 liters)
Waste container capacity: ····· 40 lb. of peel (2 cartons) (18 kg)
Speed:····· 20 fruit/minute
(20 to 60 gallons/hour)
(75 to 225 liters/hour)

Electrical Specifications

115V 60 HZ Single Phase 20 AMP Service
12 GA. wire — up to 100 ft. from main breaker panel
or
10 GA. wire — up to 200 ft. from main breaker panel
220 VAC 50 HZ Single Phase 16 AMP Service

Shipping Specifications

Machine With Stand:

Height:	67"	(170 cm)
Width:	27"	(69 cm)
Depth:	32"	(81 cm)
Weight:	535 lbs	(243 kg)

Patents

U.S. Patents - #4905586 and #4922814
& Patents Pending

General Information

The FMC FoodTech Juice Extractor is designed to provide years of dependable service. It uses a unique patented design to extract every available amount of juice from the fruit with the least amount of peel oil. The peel is completely separated from the juice and juice sacs before being compressed and strained.

The machine will juice all types of citrus — oranges, grapefruit, lemons, limes, tangerines, etc. — without changing or adjusting parts. In fact, different varieties and sizes of fruit can be juiced to create various fruit juice blends.

Clean-up is simple, requiring disassembly of only five parts. All waste material — peel, membranes, and seeds — is collected in a disposable garbage bag for easy removal and disposal.

The Juice Extractor is solidly built using heavy duty components in all assemblies, including the drive. It is simple to operate and uses a minimal number of parts.

ALWAYS follow cleaning and maintenance schedules in this manual to prevent equipment damage.

For a quick introduction to the FMC FoodTech Juice Extractor, please review the diagram on the next page.

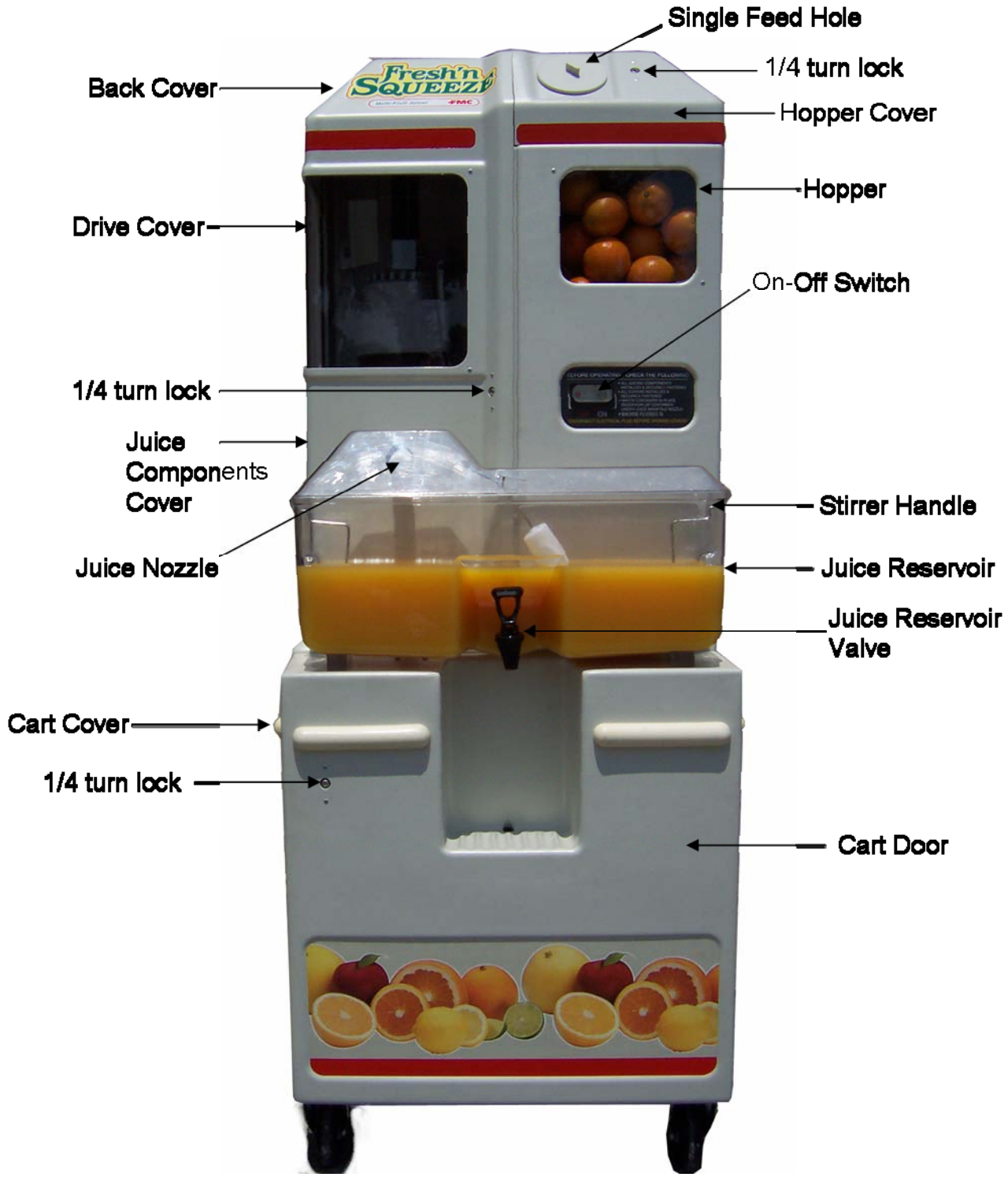


Figure 1a. FMC FoodTech Juicer Extractor

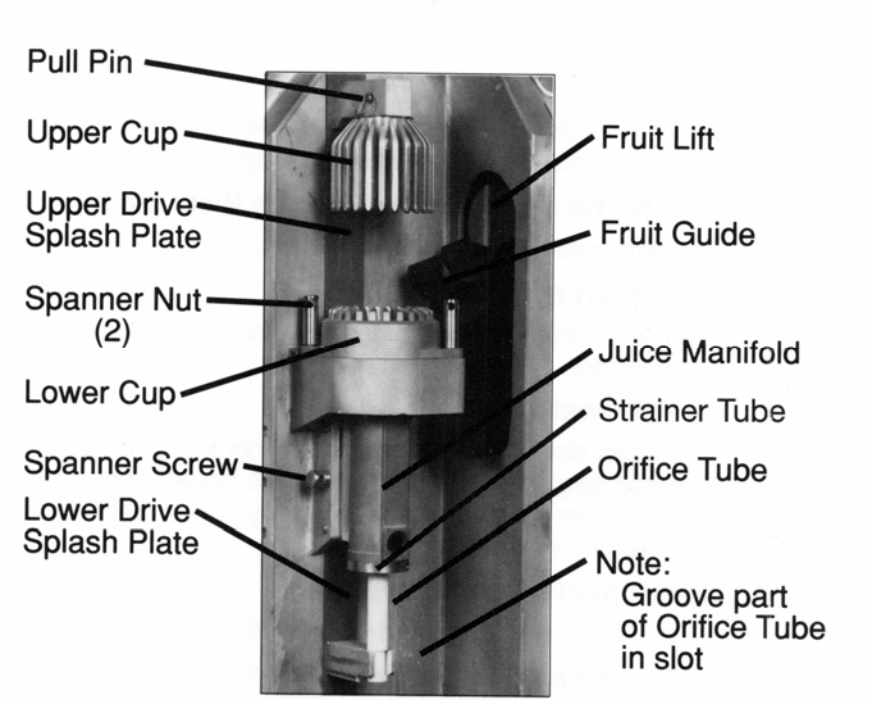


Figure 1b. Juicing Components Assembly

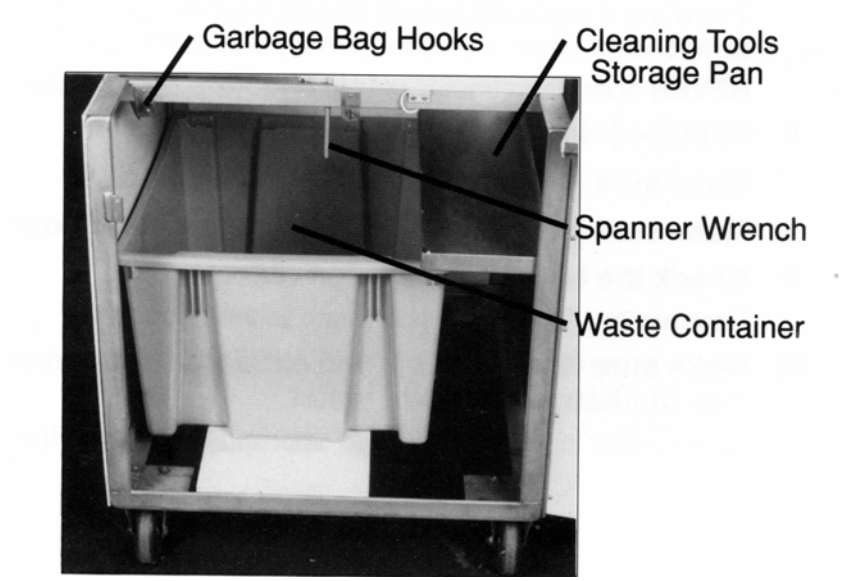


Figure 1c. Inside Cart Door

Operating Instructions

Equipment Check

Before plugging the FMC FoodTech Juice Extractor into an electrical outlet, the following steps must be performed:

1. **Locate the Citrus Juicer on a level surface.**
   This will prevent fruit feed problems.

2. **Lock both rear casters.**
   To lock, push down on caster with foot. To unlock, push again with foot.

3. **Check waste container.**
   Open cart door to verify that waste container is in place. A plastic bag may be attached to the hooks above the waste container (recommend the "Hefty Cinch Sak®", 30 gallon capacity or equivalent).

4. **Check juicing components.**
   a. Twist and pull juice nozzle off.

   b. Use key to unlock juicing components cover. Open cover and check that juicing components are installed and securely fastened. See Figure 1b, page 9.

5. **Close and lock all access covers.**
   There are 4 separate access covers: hopper cover, juicing components cover, cart door (cover) and back cover.
   NEVER operate extractor unless all covers are in place.

6. **Replace juice nozzle.**

7. **Make sure juice reservoir is firmly in place.**

8. **Make sure juice reservoir valve is in closed position.**

9. **Check the hopper for foreign objects.**
   Remove any foreign objects found in the hopper.

10. **Make sure floor area around extractor is clean and free of obstructions and water.**
    When water is necessary, wear appropriate non-slip footwear.

Operating Instructions

Juicing

CAUTION: DO NOT RUN EXTRACTOR WITHOUT FRUIT FOR MORE THAN ONE MINUTE. EQUIPMENT DAMAGE WILL RESULT.

1. **Turn on Extractor.**
   Push the "ON-OFF" button to "ON" position.
2. **Fruit may be fed into Extractor one at a time (Single Feed) or in bulk.**

   a. Single Feed

   Remove hopper single feed hole cover.

   Twist and pull cover to remove.

   Drop fruit individually down single-feed chute through hole in hopper cover.

   DO NOT overload chute or fruit will accidentally be double fed.

   b. Bulk Feed

   Unlock and open the hopper cover.

   Dump up to one carton (40 lbs.) of fruit into the hopper.
   Fruit may be divided between the carton and carton lid for ease of lifting.

3. **DO NOT use the single-feed chute when hopper is full.**
   Fruit will accidentally be double fed.
4. **Turn-off Extractor.**
   Push the "ON-OFF" Switch to the "OFF" position.
5. **Stir juice.**
   Use stirrer handle to stir juice in reservoir before filling containers.
6. **Fill containers.**
   Place container under juice reservoir valve. Open valve by turning lever until container is full.
7. **Clean Extractor.**
   If finished juicing, clean Extractor as soon as possible.
   (See next page for cleaning instructions.)

Cleaning Instructions

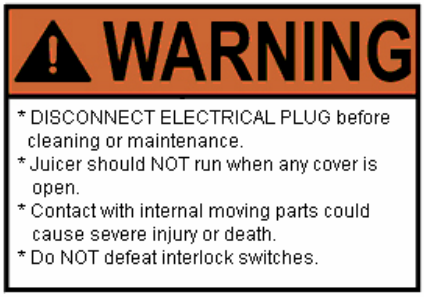
ALWAYS follow cleaning and maintenance schedules in this manual to prevent equipment damage.

Clean Extractor as soon as possible for juicing. Use a soft towel or sponge to wipe equipment parts. **DO NOT** use abrasive pads such as Scotch Brite®, steel wool, etc.

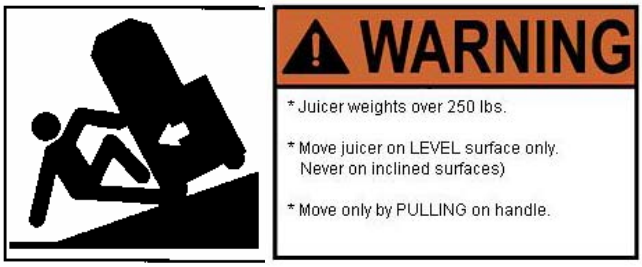
The recommended cleaner is "Pelican" brand Peralkalate. Peralkalate is a low-foaming alkaline equipment cleaner. It is safe on aluminum, 100% water soluble and free rinsing. Peralkalate has been especially formulated for cleaning food processing equipment and is USDA accepted. Follow instructions on cleaner label for dilution.

1. **Turn-off Extractor with Juicing Component cups separated.**

2. **DISCONNECT ELECTRICAL PLUG.**


WARNING
* DISCONNECT ELECTRICAL PLUG before cleaning or maintenance.
* Juicer should NOT run when any cover is open.
* Contact with internal moving parts could cause severe injury or death.
* Do NOT defeat interlock switches.

3. **Pull Extractor to clean-up area, if one is available.**


WARNING
* Juicer weights over 250 lbs.
* Move juicer on LEVEL surface only. Never on inclined surfaces)
* Move only by PULLING on handle.

4. **Brush all loose peel into waste container or bag.**

5. **Empty and rinse waste container.**

Cleaning Instructions

6. Remove juicing components.

a. Cups should be separated. (Extractor should have been turned off with cups in the separated position.)

b. Grasp upper cup and pull out pin just above it. Place upper cup in waste container.

CAUTION: DO NOT PLACE HANDS OR FINGERS BETWEEN CUPS.

c. Remove splatter shield by sliding upwards off mounting screws.

d. Remove lower cup by removing spanner nuts on either side of lower cup. (A spanner wrench is provided to loosen/tighten spanner nuts).

Place lower cup in waste container.

CAUTION: CUTTER AND KNIVES ARE SHARP.

e. Install red protective cap on cutter.
(Red protective cap is provided.)

f. Grasp juice manifold and orifice tube firmly. Remove entire juicing components assembly.

g. Grasp orifice tube and pull out of strainer tube.

h. Remove strainer tube from inside juice manifold by turning tube counter-clockwise and sliding out. (A spanner wrench is provided to loosen/tighten strainer tube.)

Place juicing components into waste container.

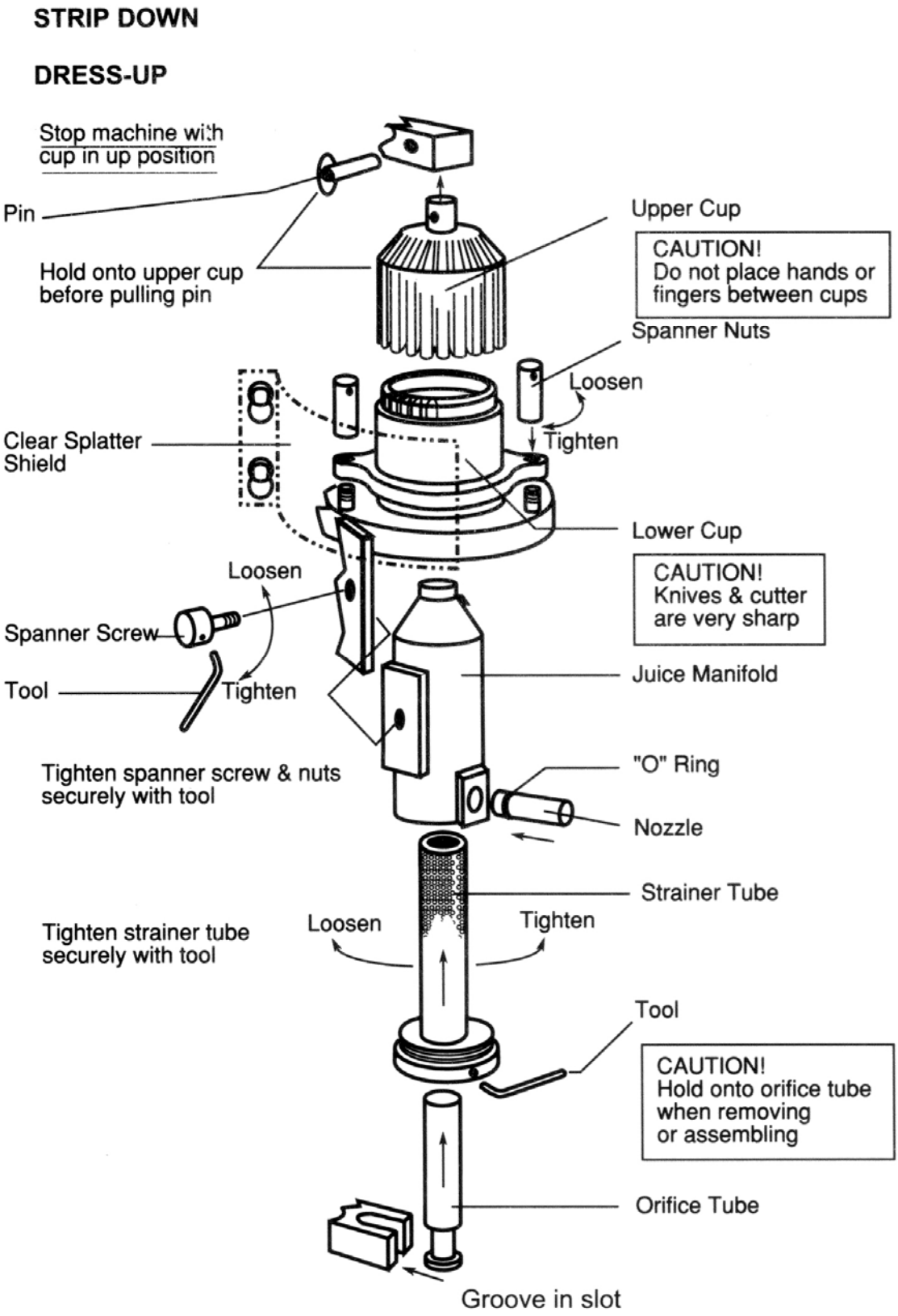


Figure 2. Juicing Components

Prepare cleaning solution.

7. "Pelican" brand Peralkalate is recommended, see page 12.
   Read the product label. Follow the manufacturer's mixing directions and safety precautions.

8. **Immerse all components in cleaning solution.**
   Use the blunt end of plastic rod provided to displace any fruit material lodged in the bore of the orifice tube.

   Use pointed end of plastic rod to displace any fruit material lodged in cup fingers.

9. **Scrub components.**
   Use a brush, towel, or sponge. **DO NOT** use abrasive pads such as Scotch Brite", steel wool, etc. Thoroughly rinse with clean water, then thoroughly rinse with sanitizer solution. Follow the manufacturer's mixing directions and safety precautions.

10. **For best results, soak strainer tube overnight.**
    After soaking overnight, rinse the strainer tube thoroughly before using. Check that all strainer tube holes are clean. Clean strainer tube with a hard spray from a hose while moving orifice tube back and forth in strainer tube. Rinse thoroughly with sanitizer solution. Allow to air dry.

11. **If possible, hose down juicing area and cover.**
    If location prohibits using a hose to clean juicing area and cover, ensure waste container is in place. Wash down the exposed juicing area and cover with a sponge or spray applicator using the recommended cleaning solution. Cover may be rinsed in place or removed by lifting it off the hinges. Allow to stand for two minutes before rinsing thoroughly with water.

12. **Re-assemble juicing components.**
    Start by re-assembling strainer tube into juice manifold. Tighten with spanner wrench. Insert orifice tube into bottom of strainer tube. Mount juice manifold assembly onto locating pins with orifice tube notch engaging lower drive. Tighten spanner screw with spanner wrench. Remove red protective cap from cutter. Install lower cup and tighten spanner nuts with spanner wrench. Install upper cup by slipping pin into stem hole. Install splatter shield.
    Refer to Figure 2, page 14.

13. **As necessary, hose down drive area.**

Remove back cover (Turn lock at top 1/4 counter-clockwise.

Pull cover out by using finger hole left of lock, then lift and pull cover using finger hole on bottom. **DO NOT** loosen any screws.) Open hopper cover. Open cart door (cover). Hose down all exposed areas. Extractor is water-resistant. **DO NOT** use any cleanser in drive area.

14. **Remove wax build-up as needed.**

Cups, hopper and other parts may acquire a build-up of wax over time.

a. **Soak cups for five minutes in an ammonia cleaning solution.**

Rinse thoroughly with sanitizer solution.

b. **Wipe hopper and other parts with a cloth soaked in ammonia cleaning solution.**

15. **Remove orange discoloration as needed.**

Equipment may exhibit some build-up or orange coloration over time. Peralkalate Solution should remove this. Wipe with a cloth soaked in any pine based cleaner (such as Pine Power or Pine Spic & Span') to remove discoloration from plastic covers.

Rinse thoroughly with sanitizer solution.

16. **Clean Tomlinson faucet.**

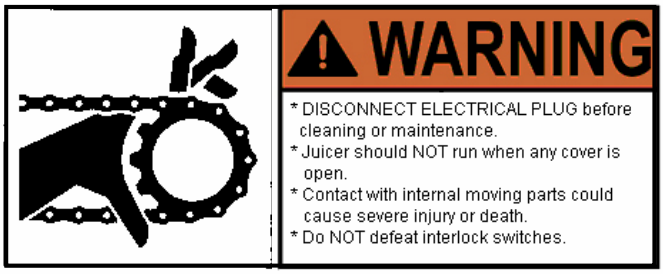
Daily cleaning is crucial to the performance, maintenance and sanitation of the faucet.

Take apart handle assembly and flush with clean water, then sanitize.

Maintenance

Before performing any maintenance,

DISCONNECT ELECTRICAL PLUG.


WARNING
* DISCONNECT ELECTRICAL PLUG before cleaning or maintenance.
* Juicer should NOT run when any cover is open.
* Contact with internal moving parts could cause severe injury or death.
* Do NOT defeat interlock switches.

Extractor requires no lubrication.

DO NOT LUBRICATE ANY BEARING, ROD END, OR SHAFT.

After every juice run:

1. **Check cutter and knives for sharpness.**
   Refer to Figure 3 to determine condition of cutter.
   If dull, sharpen with a whetstone provided.
   Refer to Figure 4a to sharpen cutter.

   If cutter is severely damaged or rolled over, replace cutter.

   a. **Cutter removal:**
   Disassemble juicing components per Figure 1b, page 9. Loosen set screw under front knife (make sure screw is backed out far enough to clear cutter). Cutter should lift out, if not, tap the cutter lightly from inside the juice manifold with a 1-1/4" dia rod (hammer handle).

CAUTION: CUTTER AND KNIVES ARE SHARP.

Install red protective cap provided onto cutter. After red protective cap is installed, remove cutter. Handle cutter with care to avoid direct contact with sharp edge.

b. **Cutter installation:**
Align arrows on cutter and juice manifold to seat cutter. Make sure cutter is fully seated. Tighten set screw.
(DO NOT over-tighten**.)**

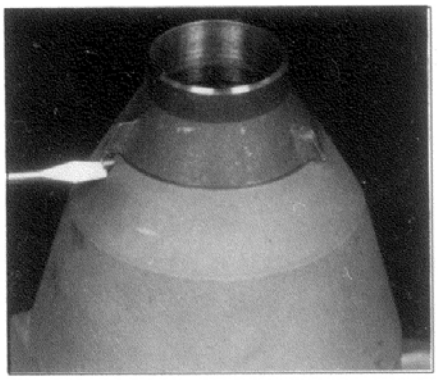


Figure 3. Installation of good cutter

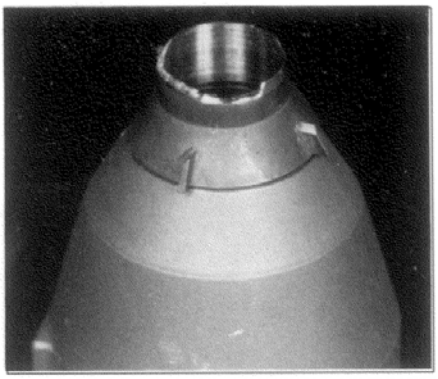


Figure 3a. Bad cutter- REPLACE cutter

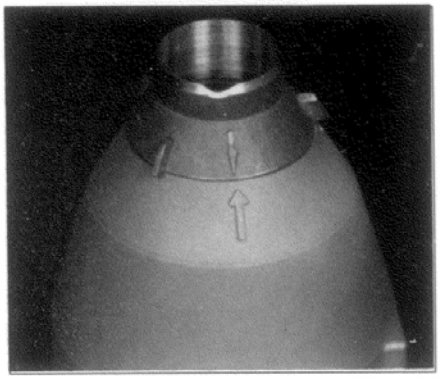


Figure 3b. Cutter that can be sharpened

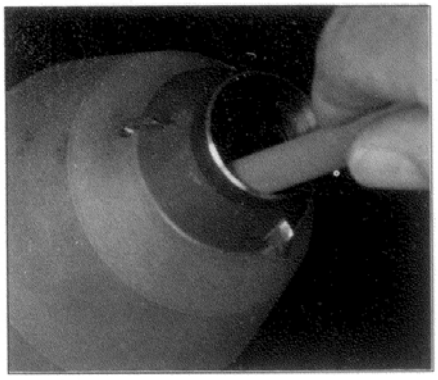


Figure 4a. Sharpening Cutter with Whetstone

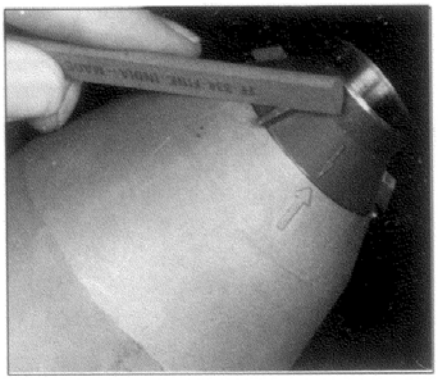


Figure 4b. Sharpening knife with Whetstone

Maintenance

2. Check orifice tube for damage.
Refer to Figure 5

Replace tube when:

a. Chunks are missing from top end.

b. Score marks 1/32" or deeper appear along the length of the tube.

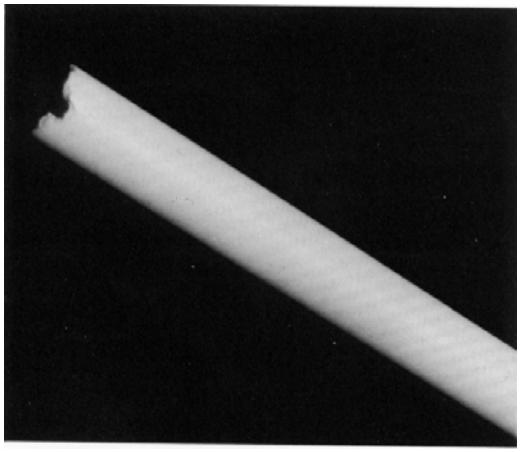


Figure 5. Severely Damaged Orifice Tube

3. Check for loose or missing nuts and bolts.

a. Tighten or replace nuts and bolts as necessary.
b. **DO NOT** exceed torque ranges specified in Service Manual
c. **ALWAYS** use FMC FoodTech recommended spare parts.

Periodic Inspection

Perform the following steps after every 3 - 4 months.

1. **Test all access cover interlock switches.**
   Extractor should stop automatically when any access cover is opened. Individually open and close the four access covers (hopper, juice components, cart and back). If extractor continues to run when any access cover is opened, the interlock switch is defective.

   Stop the extractor and replace immediately.

   See Trouble Shooting Section.

2. **Check all fasteners for tightness.**
   Check especially on the Sprockets, Crank Arms, Fruit Lift, and Hopper.

3. **Check chain for tightness.**
   Refer to Figure 6.

Chain should have 1/4 inch maximum slack on top side. To adjust, (see Figure 7) loosen the four bolts holding the gearbox base to frame, move motor/ gearbox to the correct adjustment. (If necessary, use a small board to pry between frame and motor.)

CAUTION : DO NOT OVER TIGHTEN CHAIN.

4. **Check chain and sprockets for rust.**
   If rust appears, coat chain and sprockets with a small amount of grease.

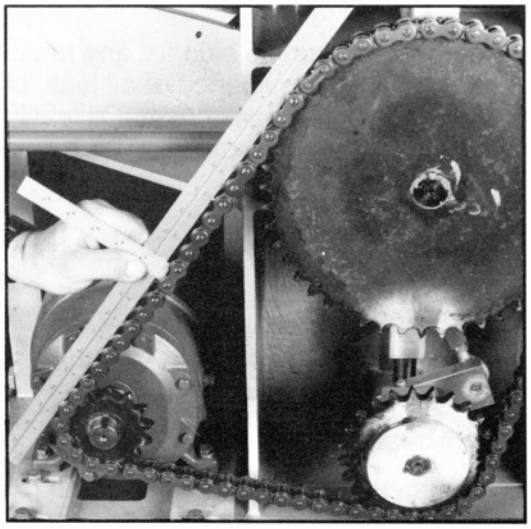


Figure 6. Checking Chain Slack

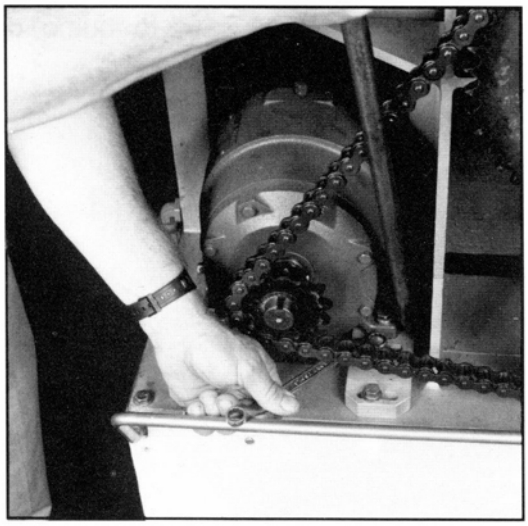


Figure 7. Loosening Bolts on Base of Motor, and Prying Motor

Periodic Inspection

5. Check oil level in gearbox.
Refer To Figure 8.

If Extractor has been laid on its side for any reason (i.e., during shipping), or if there is any evidence of oil leak, check gearbox for proper oil level. Remove back cover. Oil level plug is located on the left side of gearbox. Filler plug is located on the top of the gearbox.

Use S.A.E. 40W oil only.

6. Check hopper bump button.
Refer to Figure 9b.

Replace bump button if it has worn to less than 1/8" high. To locate hopper bump button, remove hopper.

a. Hopper removal:

Fruit lift (upper cup drive) must be in down position. Remove two spanner screws using spanner wrench. Remove hopper. If hopper does not lift out, see Troubleshooting, page 26, item 'a', to remove electrical switch cover.

b. Hopper installation:

DO NOT over tighten spanner screws. Hopper is designed to be loose. Hopper must be free to "bump" during each cycle to prevent fruit bridging.

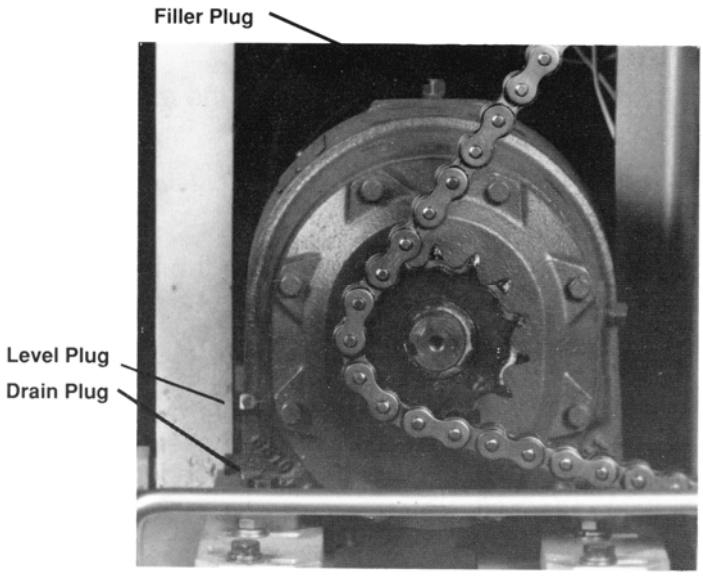


Figure 8. Checking Oil Level in Gearbox

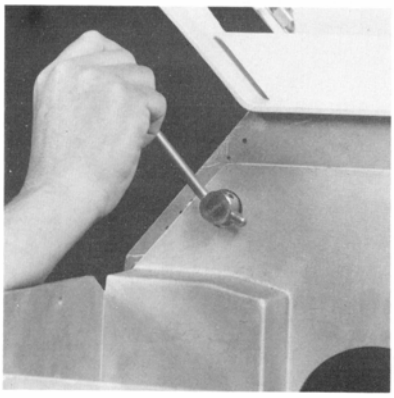


Figure 9a. Hopper Removal

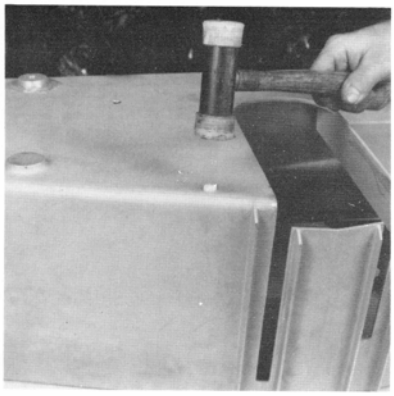


Figure 9b. Bump Button Installation

Periodic Inspection

7. Check alignment of fruit lift.
Refer to Figure 10.

Fruit lift agitator dividers must align with the middle of slots in bottom of hopper.

a. Fruit lift adjustment:
Refer to Figure 11.

Loosen the two cap screws attaching the fruit lift to upper cup drive arm. Adjust fruit lift.

Tighten cap screws.

b. Fruit lift repair:

If fruit lift is damaged (bent, but not broken), it can be removed and straightened. Remove hopper before fruit lift. Straighten fruit lift.

Reinstall fruit lift with Loctite #242 on cap screws.

8. Check to make sure two plastic bearing buttons have been installed on bottom face of fruit lift.
Refer to Figure 12.

Figure 10. Fruit Lift Alignment

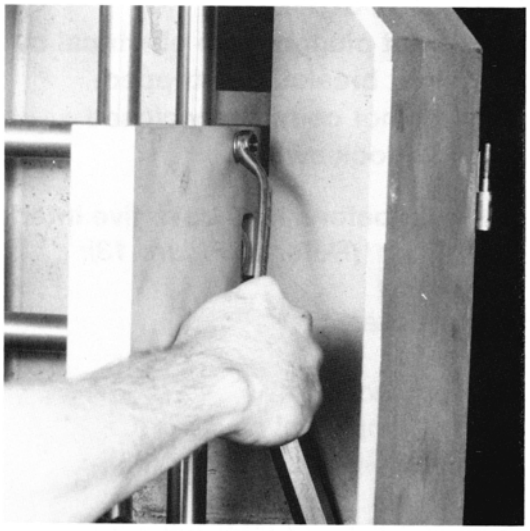


Figure 11. Fruit Lift Bolts

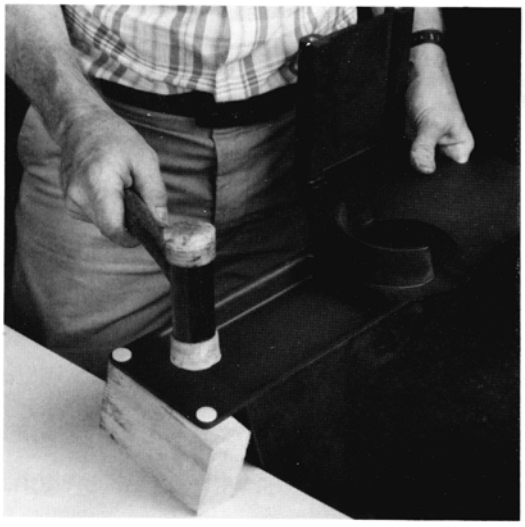


Figure 12. Fruit Lift Plastic Bearings

Troubleshooting

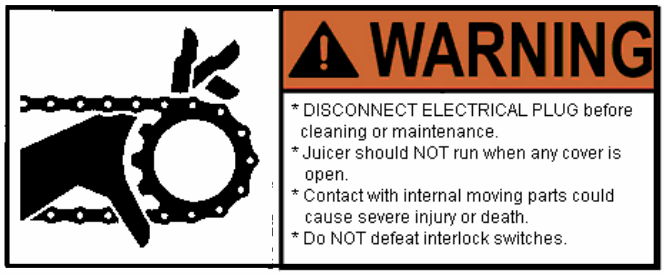
Extractor will not start.

1. **Extractor is not plugged into electrical outlet.**
2. **Building circuit breaker has tripped.**
3. **All covers are not completely closed**
4. **Defective interlock switch.**

Machines built before 1997 have five interlock switches
Refer to Figure 13.

1 - Hopper cover
1 - Back cover
1 - Cart door (cover)
*1 - Juicing Component cover
1 - High Level Switch

Machines built in 1997 and later have two Schmersal Switches.
Refer to Figure 15c.


WARNING
* DISCONNECT ELECTRICAL PLUG before cleaning or maintenance.
* Juicer should NOT run when any cover is open.
* Contact with internal moving parts could cause severe injury or death.
* Do NOT defeat interlock switches.

a. Remove the large cover protecting electrical box and motor. Refer to Figure 14.

Loosen three screws in juicing area. Remove three screws on the right side.

Remove electrical box cover with on-off switch.

*Two on Machines without High Level Switch

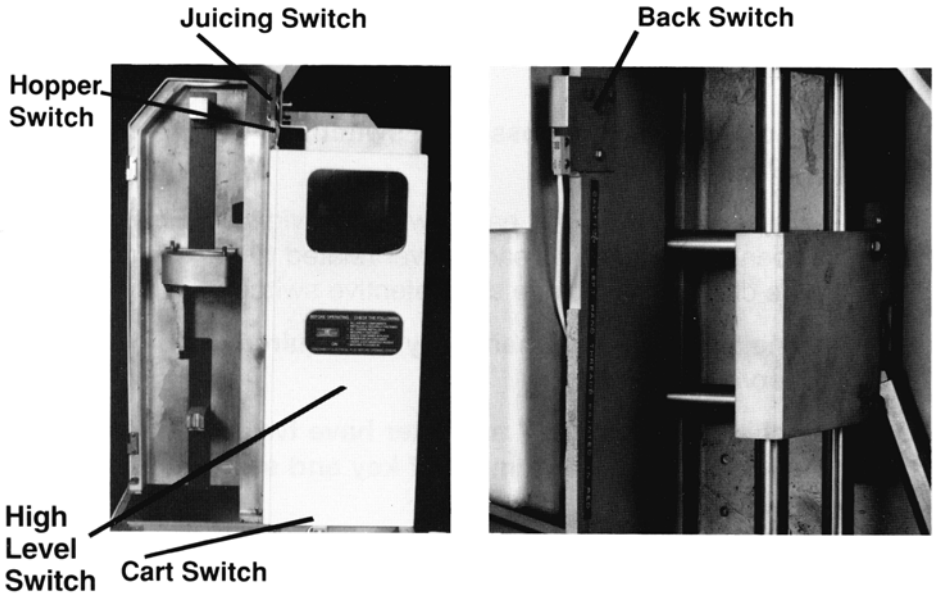


Figure 13. Interlock Switch Locations

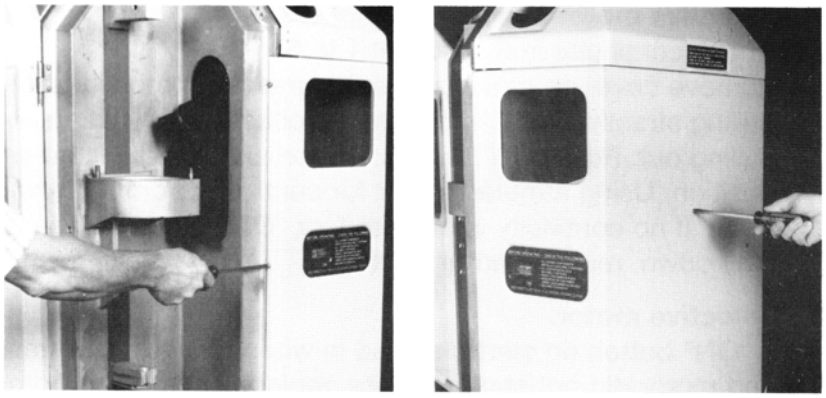


Figure 14. Removal of Switch Cover Panel

Troubleshooting

Extractor will not start.

b. Check continuity thru all switches.
Refer to Figure 15b & 15c.

c. Check continuity across each switch.
Refer to Figure 15b & 15c.

Using a meter, check each switch individually. Check by opening and closing each cover related to the switch you are checking. Replace any defective switches.

d. Some linkage adjustment may be required on juice reservoir float switch.

e. Machines built in 1997 and later have two Schmersal Switches. Check alignment of key and switch. Adjust if necessary.

5. **Loose wire connection.**
   Check all spade and screw terminals.
   With wires still connected, remove cover to motor starter and check for loose wires on D1 and D2.

6. **Defective under voltage coil.**
   Check continuity from terminals D1 to D2.
   Using a meter, check for continuity from terminal D1 to D2.
   If no continuity is detected, replace under voltage coil.

7. **Defective motor starter.**
   Check continuity from terminal 1 to 6.
   Remove cover on motor starter by grasping both sides and pulling straight out. Remove under voltage coil by lifting and pulling out. Push "ON" button. Button should stay in down position. Using a meter, check for continuity from terminal '1 ' to '6.' If no continuity is detected, or "ON" button does not stay down, replace motor starter.

8. **Defective motor.**
   If "ON" button on starter stayed in when trying to start machine and motor did not start or rotate, replace entire gear motor. If there is a humming noise, the capacitor needs to be replaced. To replace capacitor, remove long cylindrical cover on motor. Reseal motor cover with RTV Silicone.

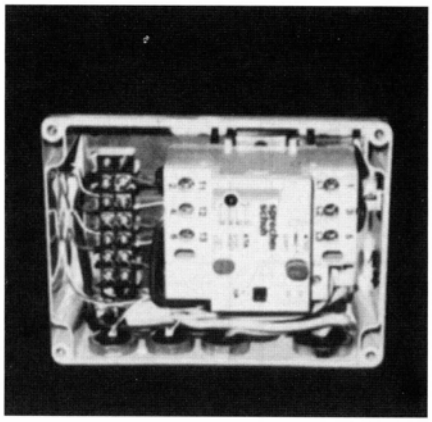


Figure 15a. Sprecher Schuh Electrical Box

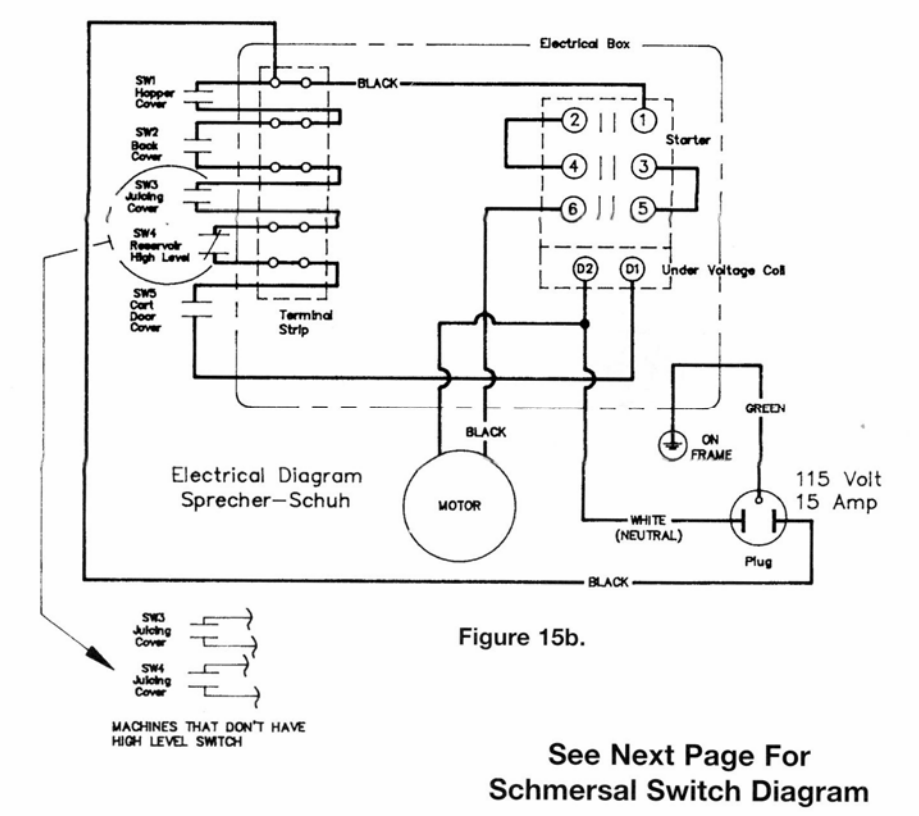


Figure 15b.

See Next Page For Schmersal Switch Diagram

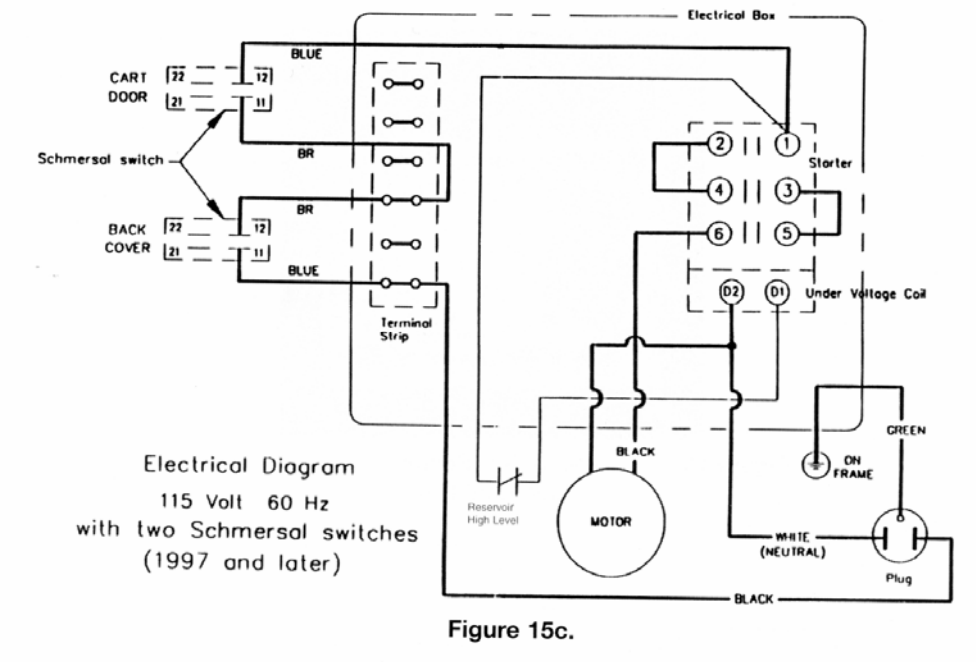


Figure 15c.

See Page 47 for 220V Diagrams

Troubleshooting

Machine starts, but shuts off.

1. **Building circuit breaker is not rated for 20 Amps.**
2. **Extension cord or wiring is too long.**
   Shorten extension cord or use heavier gauge wire.
   (See page 6 "Electrical Specifications")
3. **All covers not completely closed (including cart).**
   Extractor may be flexing when squeezing fruit, causing switch to open. Make sure all latches are completely locked
4. **Amperage setting on motor starter on machine set too low.**
   See page 26, item 'a', under "Extractor will not start" for removing covers. Dial next to "OFF" button should be set at 14.

CAUTION: IF SETTING IS TOO HIGH, MOTOR WILL BURN UP.

Extractor stalls trying to squeeze a fruit.

1. **Fruit has part of stem on it.**
   Turn off Extractor. Remove fruit from Extractor and restart.
2. **Peel is too thick.**
   Turn off Extractor. Remove fruit from Extractor and restart.
3. **Cutter is damaged.**
   Sharpen or replace cutter as specified on under maintenance.

CAUTION: CUTTER AND KNIVES ARE SHARP.

Install red protective cap onto cutter.
After red protective cap is installed, remove cutter. Handle cutter with care to avoid direct contact with sharp edge.

Extractor runs with covers open or off.

1. **Defective interlock switch. Replace immediately.**
   See page 26, item 'a', under "Extractor will not start" for removing covers.

Extractor emits a "squealing" sound during operation.

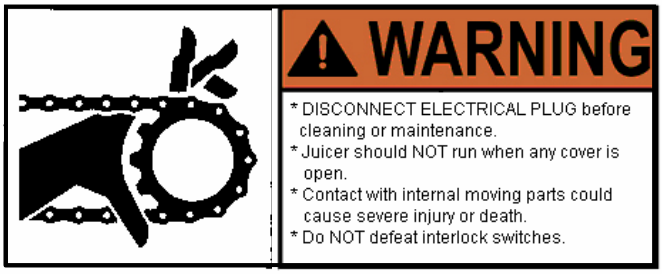
1. **Lubricate grease fittings on machine.**
   If noise continues, rod end or bearing is defective, see Rebuilding section to replace bearings.

Scraping noise coming from hopper area.

1. **Fruit lift mechanism is dragging on hopper.**
   See page 24, item 7 under “periodic inspection”.

Rebuilding

It is best to replace all bearings at the same time.


WARNING
* DISCONNECT ELECTRICAL PLUG before cleaning or maintenance.
* Juicer should NOT run when any cover is open.
* Contact with internal moving parts could cause severe injury or death.
* Do NOT defeat interlock switches.

Step-by-Step instructions for replacing all bearings and rod ends.

1. **Remove all juicing components**

2. **Lift juicing component cover off its hinges.**
   Refer to Figure 1.

   Remove back cover (1/4 turn lock at top, pull cover out by using finger hole to the left of the lock, then lift and pull using finger hole of bottom. **DO NOT** loosen any screws). Remove drive cover, one screw on top, and two on the side.

   (**DO NOT** loosen lower two screws).

3. **Remove upper and lower drive splash plates in juicing area.**
   Refer to Figure 16.

   Use knife to cut away Silicone from plastic splash plates and drive arms. If necessary, use hand crank adapter on motor sprocket with 1/2" drive ratchet to rotate machine into position to pull off splash plates.
   Refer to Figure 17 and Figure 36, item 12.

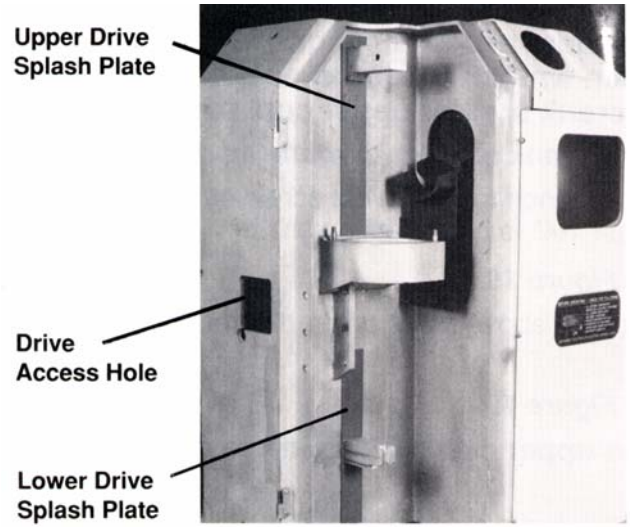


Figure 16. Front View of Juicer

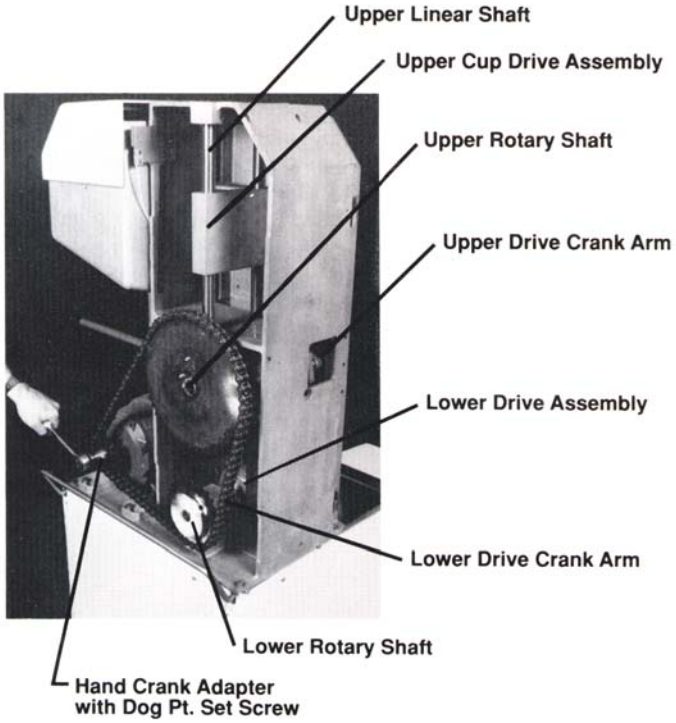


Figure 17. Back View of Juicer

Rebuilding

4. **From 3" inch square access hole on side of machine, use a 5/16" Allen wrench to loosen socket head cap screw on crank arm for upper cup drive .**

   (Use hand crank adapter to rotate as necessary).

   Use a 3/16" Allen wrench to loosen set screw on keyway. Back screws out at least 1/4" to clear flats on shafts.
   Refer to Figure 18.

   From the back repeat above steps on crank arm for lower drive.
   Refer to Figure 19.

5. **Rotate drive so upper cup drive is in the down position.**
   Remove chain, spring clip type master link.

   Be careful- drive arms may move as chain is removed.

6. **Remove sprockets with shafts still connected.**
   Pull or pry on large diameter upper drive sprocket, repeat for lower drive sprocket.
   Refer to Figure 20.

Figure 18. Using Allen Wrench to Loosen Upper Cup Crank Arm.

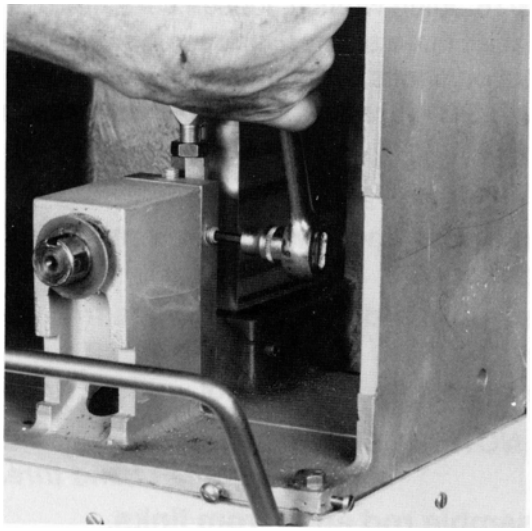


Figure 19. Loosening Lower Crank Arm

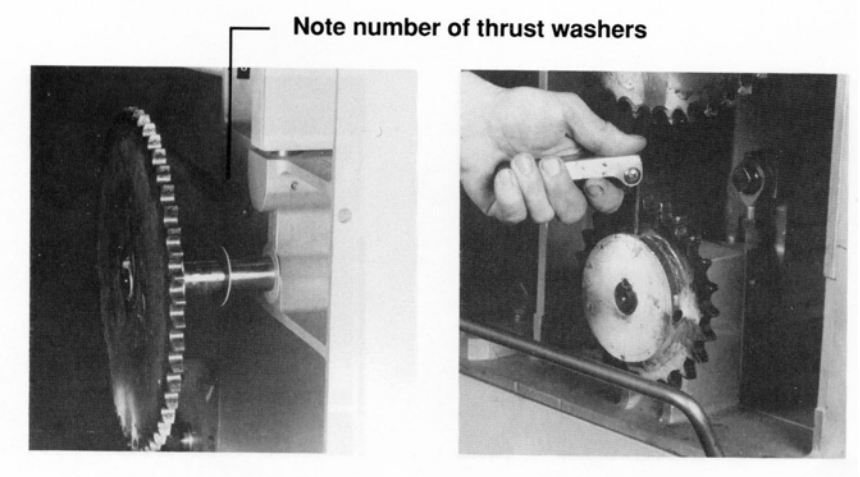


Figure 20. Sprockets with Shaft being Removed

Rebuilding

7. **Remove linear shafts.**
   With a 3/16" Allen wrench, loosen set screws at top and bottom of all three shafts. Back screws out at least 1/4" to clear flats on shafts. If shafts are stuck, use bearing removal puller with 3/8"-16 x 2" hex head cap screw to break free shafts.
   Refer to Figure 21.

8. **Lift out upper and lower drive arms with linkages still attached.**

9. **Disassemble rod end assemblies from drive and crank arms.**

   Note location and numbers of washers and spacers.

   NOTE: Screws and rod ends on both crank arms are left hand threads.

10. **Disassemble rod ends from links.**
    Reassemble with new rod ends (Refer to Figures 22 and 23), using rod end adjustment bar with the appropriate rod and tooling washer. Remember one end is a left-handed thread. Wrenches required - 3/4", 7/8", and 15/16".

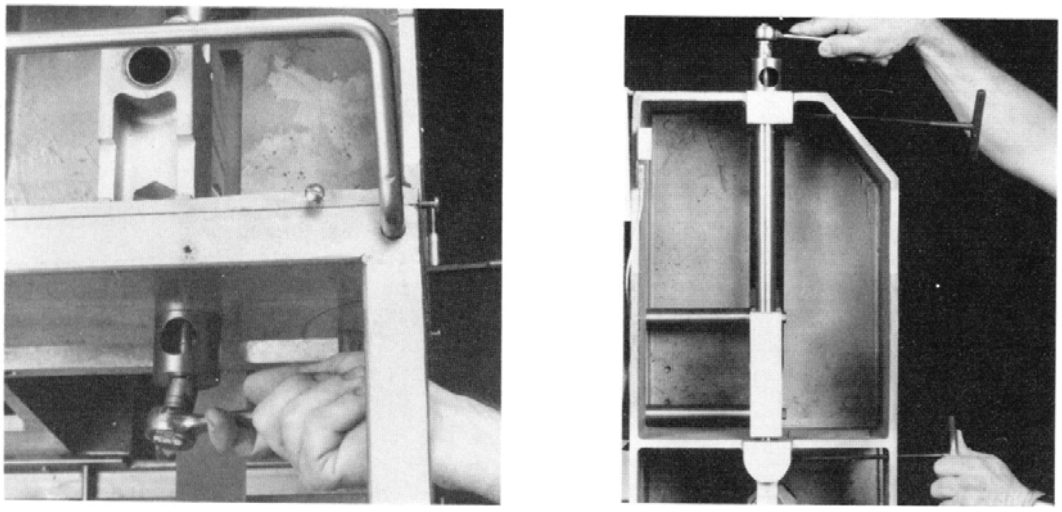


Figure 21. Removal of Linear Shafts with Puller

Figure 22. Assembly of 5/8" Rod Ends

Figure 23. Assembly of 1/2" Rod Ends

Rebuilding

11. Remove sleeve bearings from upper and lower drive arms.
Refer to Figures 24 and 25

Bearings can be pulled out using puller, 1" removal slug, and short threaded removal rod; or can be driven or pressed out using driver. New bearings can be installed by compression (Figure 26) by using installation pilot, installation washer and long threaded installation rod, or just use installation pilot and press bearings into place. Light coat of Teflon® grease can be used on O.D. of bearings.

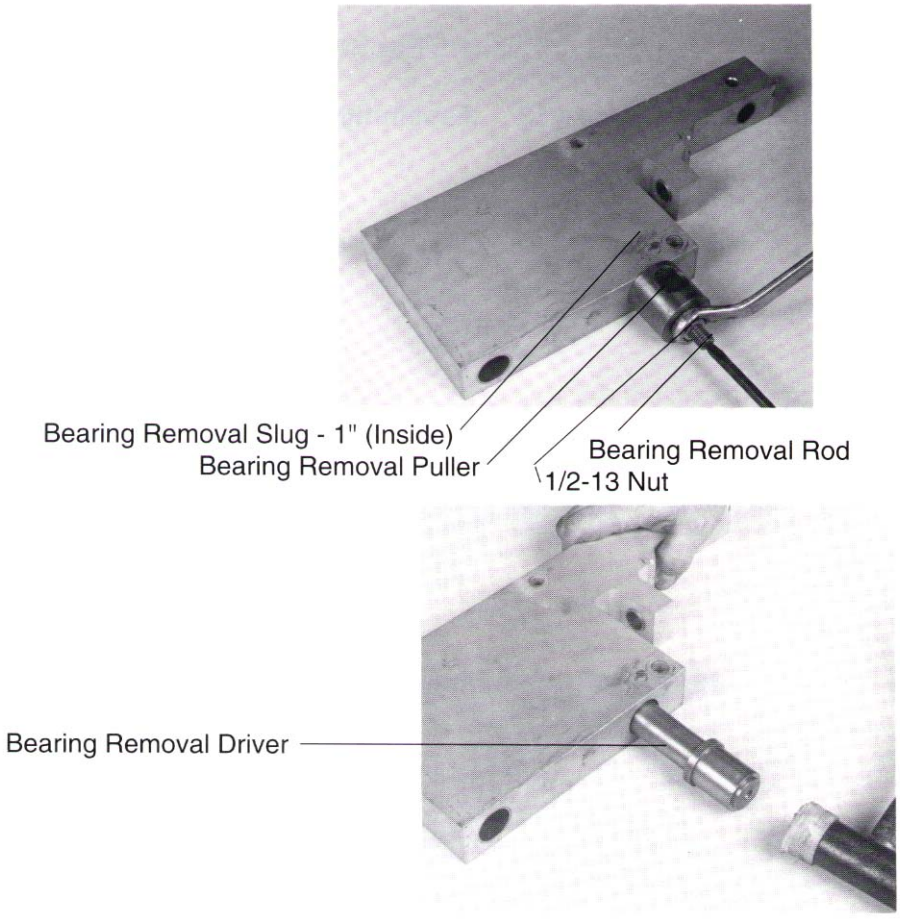


Figure 24. Removing Bearings from Upper Drive Arm

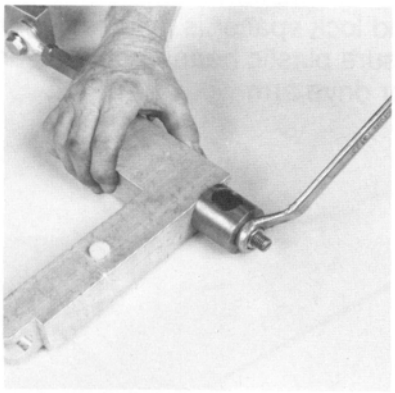


Figure 25. Removing Bearings from Lower Drive Arm

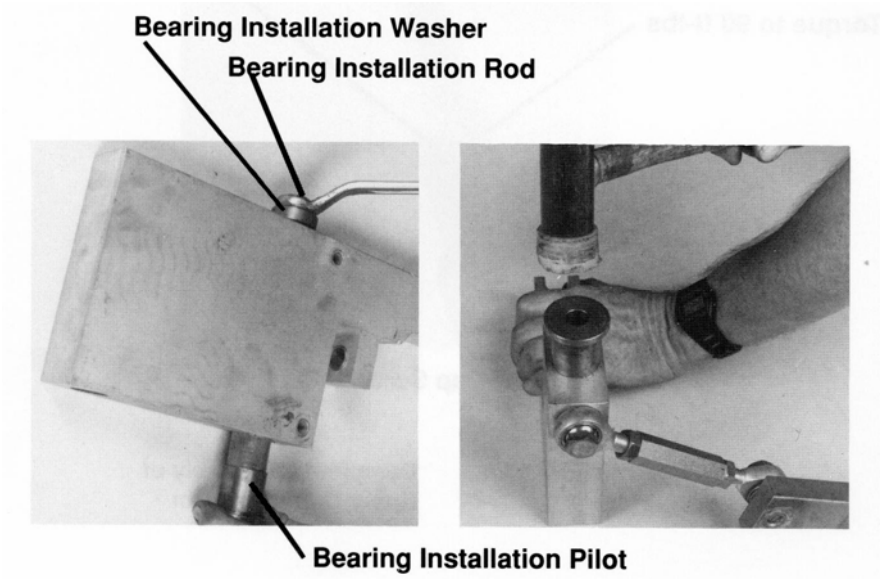


Figure 26. Installation of Bearings into Drive Arms

Rebuilding

12. Reassemble rod end assemblies to drive arms, again making sure left hand threaded ends are on the crank arms.
Refer to Figures 27 and 28.

Use Loctite #242 on all fasteners. Tighten to torques as shown. Make sure rod end lock spacer is installed on rod end in upper drive arm. Make sure plastic bearing buttons are installed on each side of lower drive arm.

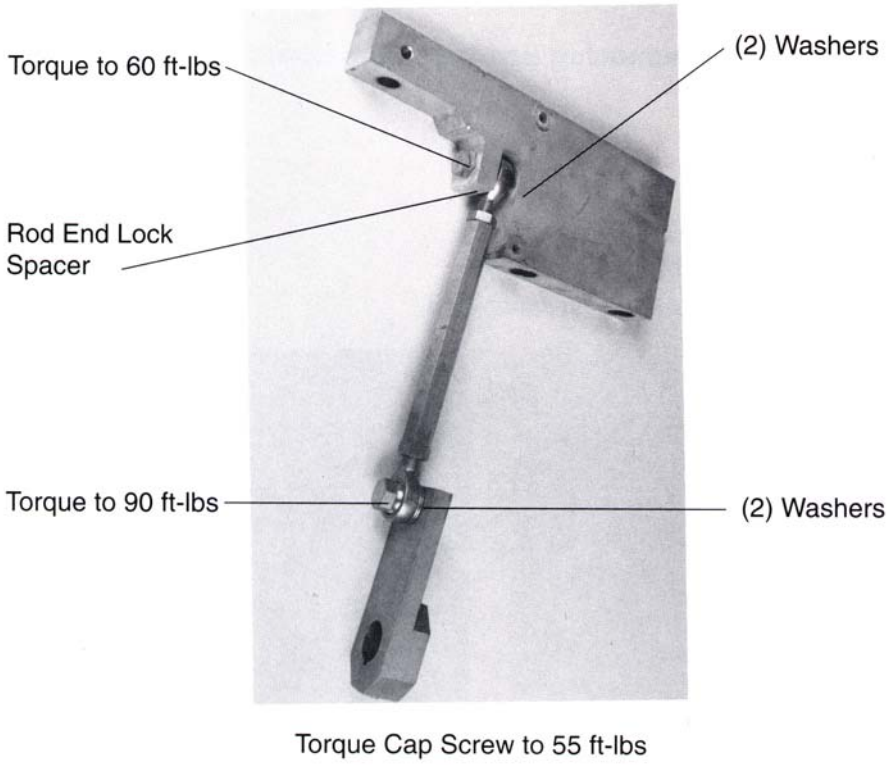


Figure 27. Completed Assembly of Upper Cup Drive Arm

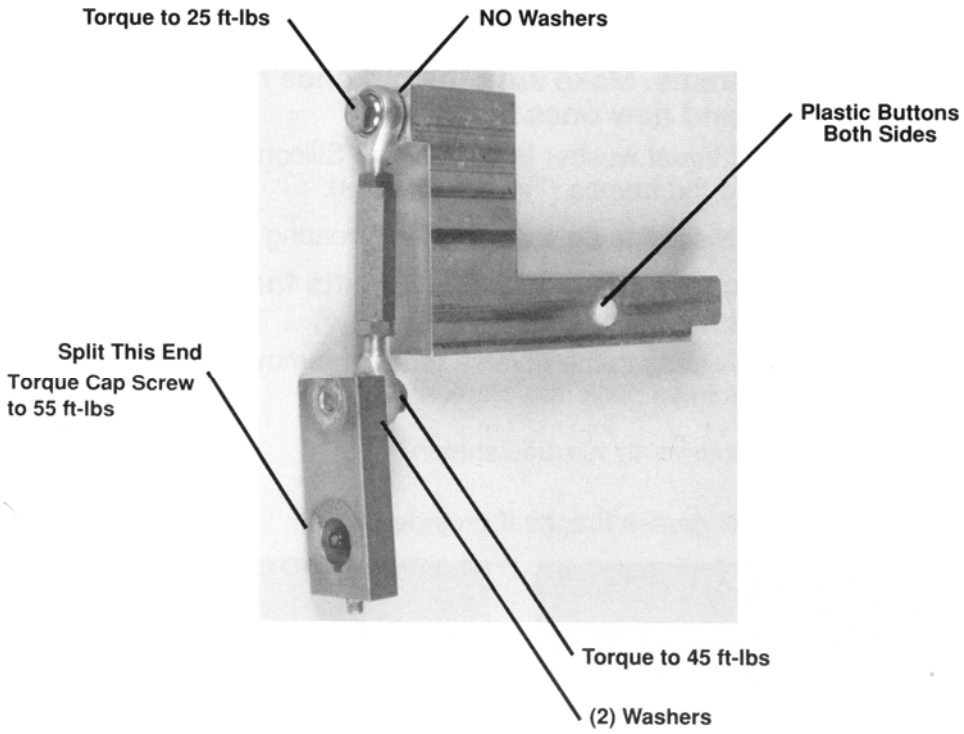


Figure 28. Completed Assembly of Lower Drive Arm

Rebuilding

13. Remove sleeve bearings from main frame.
Refer to Figures 29 and 30.

The outer upper drive shaft bearing can be removed using puller, 1-1/4" removal slug, and short threaded removal rod.

The inner bearing can be removed the same way, or can be pressed out using driver. The lower shaft bearing can be removed the same way except using 1" removal slug. New bearings can be installed by compression (Figure 31) by using installation pilot, installation washer, and long threaded installation rod. Light coat of Teflon grease can be used on O.D. of bearings to aid in installation.

14. There are thrust washers next to each bearing on the main frame. Make sure the old ones have been removed and new ones installed.
One side of thrust washer is plain metal. Silicone this side and glue them to the frames (Typical 4 places).

DO NOT get silicone on surface of any bearing.

15. Before reassembling, check all shafts for excessive wear; replace as necessary.

Reassemble parts in the reverse order of removal. **DO NOT** forget to put keys back into crank arms.

On both crank arms, be sure to tighten socket head cap screw first. And then the set screw.

Tighten fasteners to torques shown.

Lubricate all grease fittings if provided.

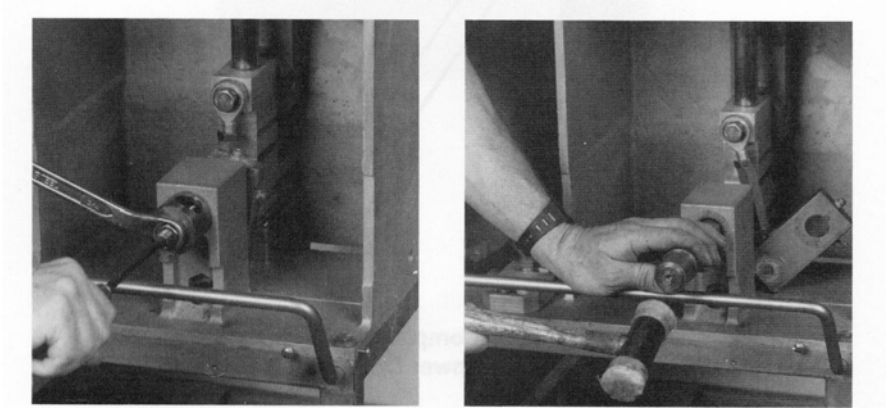
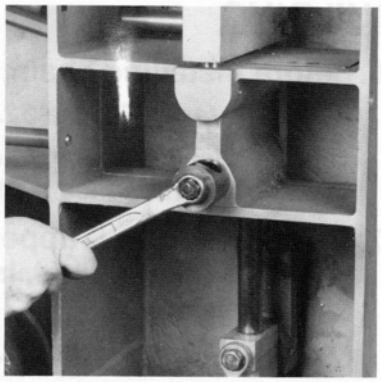


Figure 29. Removing Bearing from Lower Rotary Drive



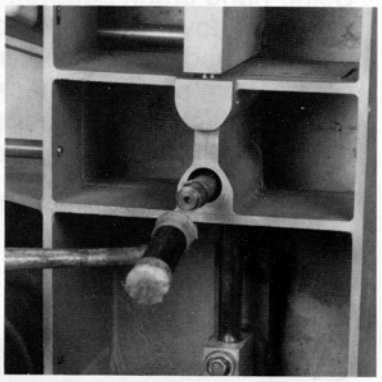
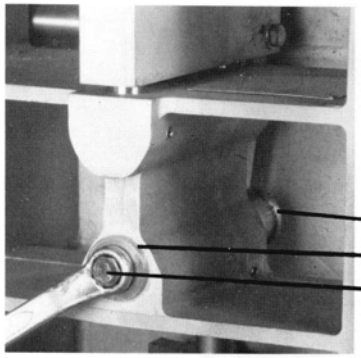
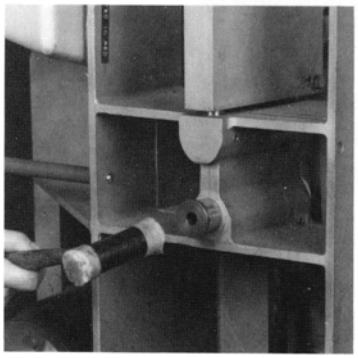


Figure 30.
Removing Bearing from Upper Rotary Drive





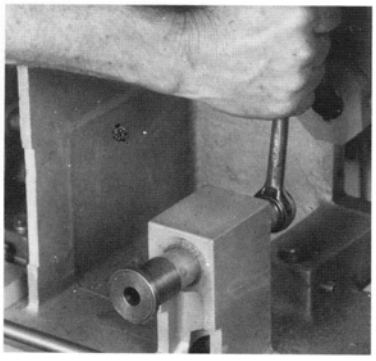


Figure 31. Installation of Bearings and Thrust Washers

Rebuilding

16. **Before installing chain, align timing marks as shown.**
    Refer to Figure 32.

    This is critical to operation of the machine. Adjust chain as shown in Maintenance section.

17. **To check to see if upper cup crank rod end link needs to be adjusted, install juice manifold, upper and lower cup.**
    Refer to Figure 33.

    Using hand crank adapter, gently rotate until upper cup drive is in the full down position. **DO NOT** force it, if it appears to be binding, readjust rod end link **(Figure 34).** If it rotates freely past bottom position, check for too much clearance. In the full down position remove pull pin from upper cup. Cup should not drop down; if it does, readjust rod end link.

    Cups should just meet - no clearance - no bind.

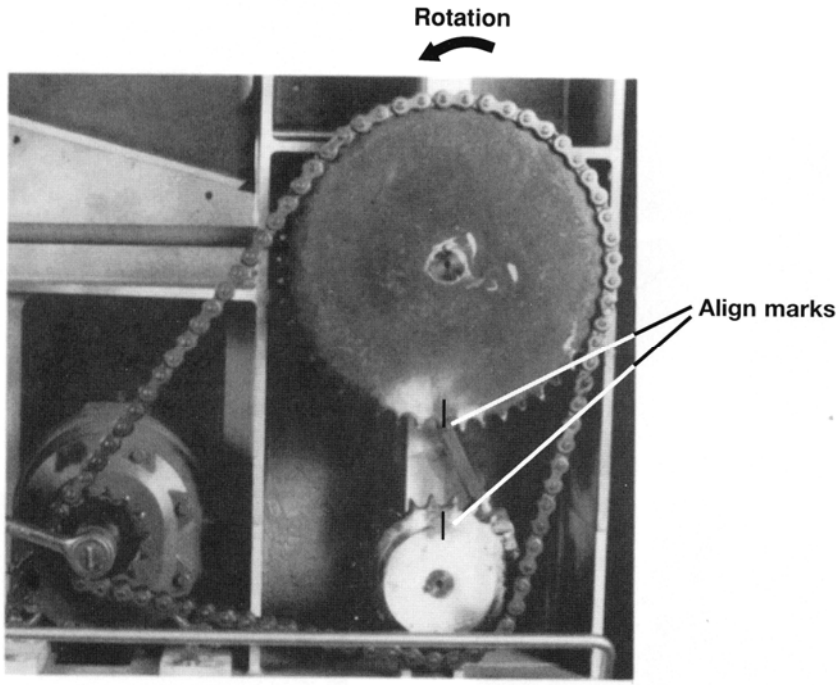


Figure 32. Alignment of Timing Marks

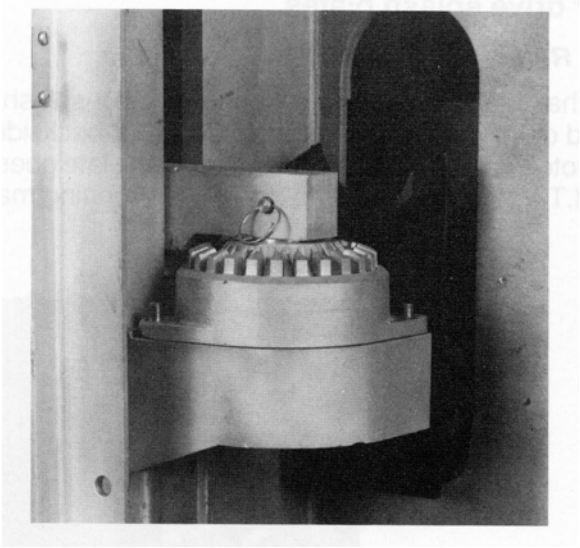


Figure 33. Checking for Cup Clearance

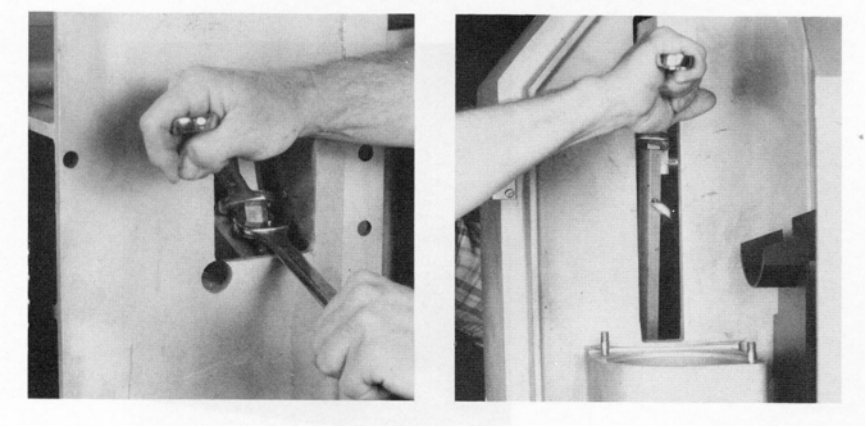


Figure 34. Adjusting Rod Link Ends

Rebuilding

18. Remove juicing components and install upper and lower drive splash plates. Refer to Figure 35a and 35b.

Note that chamfer on top front edge of lower splash plate goes up and out. Put thin part to the top, and flat backside against the wall. Also note that groove in upper drive splash plate goes down and in. Seal with R.T.V. Silicone, allow to dry before running machine

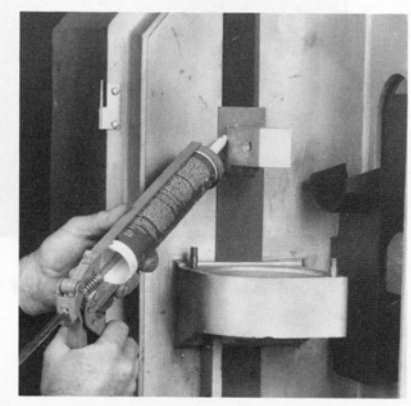


Figure 35a. Applying Silicone to Upper Splash Plate

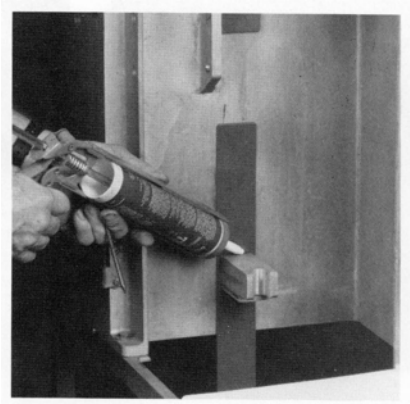
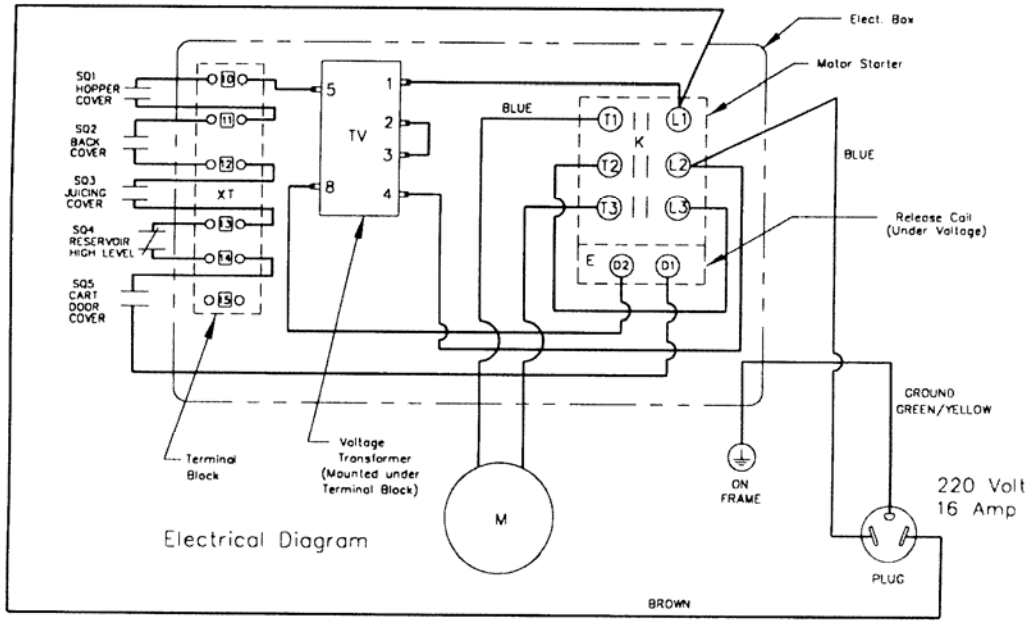
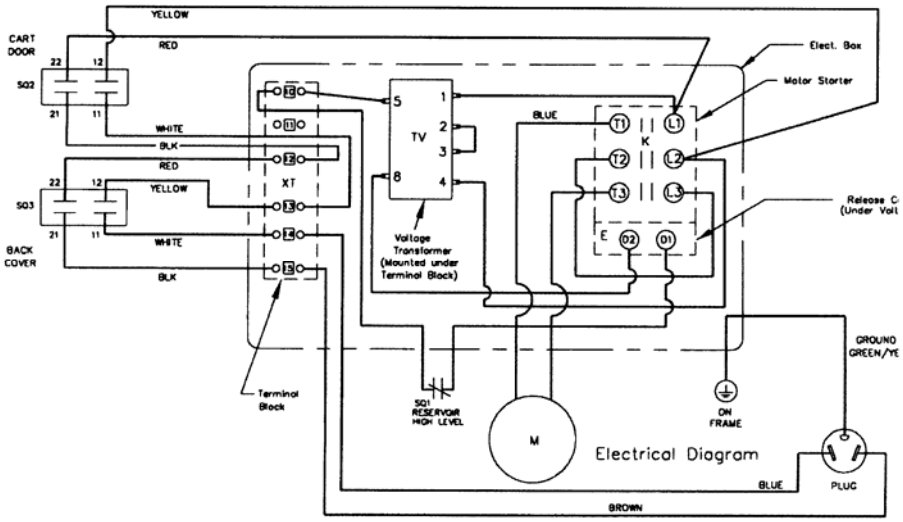


Figure 35b. Applying Silicone to Lower Splash Plate



Machines built before 1997



Machines built in 1997 and later

Rebuild Tooling Kit & Spare Parts Kits

Item	Part Number	Description
1	060-00180-B	Tool, Bearing Installation Pilot
2	060-00181-B	Tool, Bearing Installation Washer
3	060-00182-B	Tool, Bearing Puller
4	060-00183-B	Tool, Bearing Removal Slug 1"
5	060-00184-B	Tool, Bearing Removal Slug 1-1/4"
6	060-00185-B	Tool, Bearing Removal Driver
7	060-00186-B	Tool, Bearing Installation Rod
8	060-00187-B	Tool, Bearing Removal Rod
9	060-00188-B	Tool, Washer, Rod End, 1/2"
10	060-00189-B	Tool, Washer, Rod End, 5/8"
11	060-00190-B	Tool, Rod End Adjust Bar
12	060-00191-B	Tool, Adapter, Hand Crank
13	004-350-648	Screw, Cap, Hex, 5/8-11 x 1-1/2", C/G
14	004-350-571	Screw, Cap, Hex, 1/2-13 x 1-1/2", Full Thread, C/G
15	004-110-063	Nut, Hex,1/2-13, Grade 8 Steel
16	004-815-100	Washer, Plain Narrow, 1/2", C/G
17	00-4815-080	Washer, Plain Narrow, 3/8", C/G
18	004-350-407	Screw, Cap, Hex, 3/8-16 x 2", C/G
19	004-410-046	Screw, Set, Square Head, Dog Pt, 3/8-16 x 3/4"
20	009-998-004	Bit, Spanner Insert, #8, 1/4 Hex (Not Pictured)
	060-00202	Kit, Tool, CJ & MFJ (Includes above Items 1 - 20)

Other Multi-Fruit Juicer Kits

060-00201	Kit, Bearing Overhaul
060-00215	Kit, Complete Overhaul
060-00200	Kit, Spare Parts

Cleaning Components & Other Parts

060-00084	Rod, Orifice Clean Out
009-080-326	Brush, 1-1/16" x 8"
060-00131	Peralkalate Cleaner 750 M
009-710-031	Stone, Sharpening
003-460-053	Lubricant, W/ Teflon, 3 Oz Tube
003-460-057	Lubricant, W/ Teflon, 14 Oz Can
003-015-905	Silicone, White, 3 Oz Tube

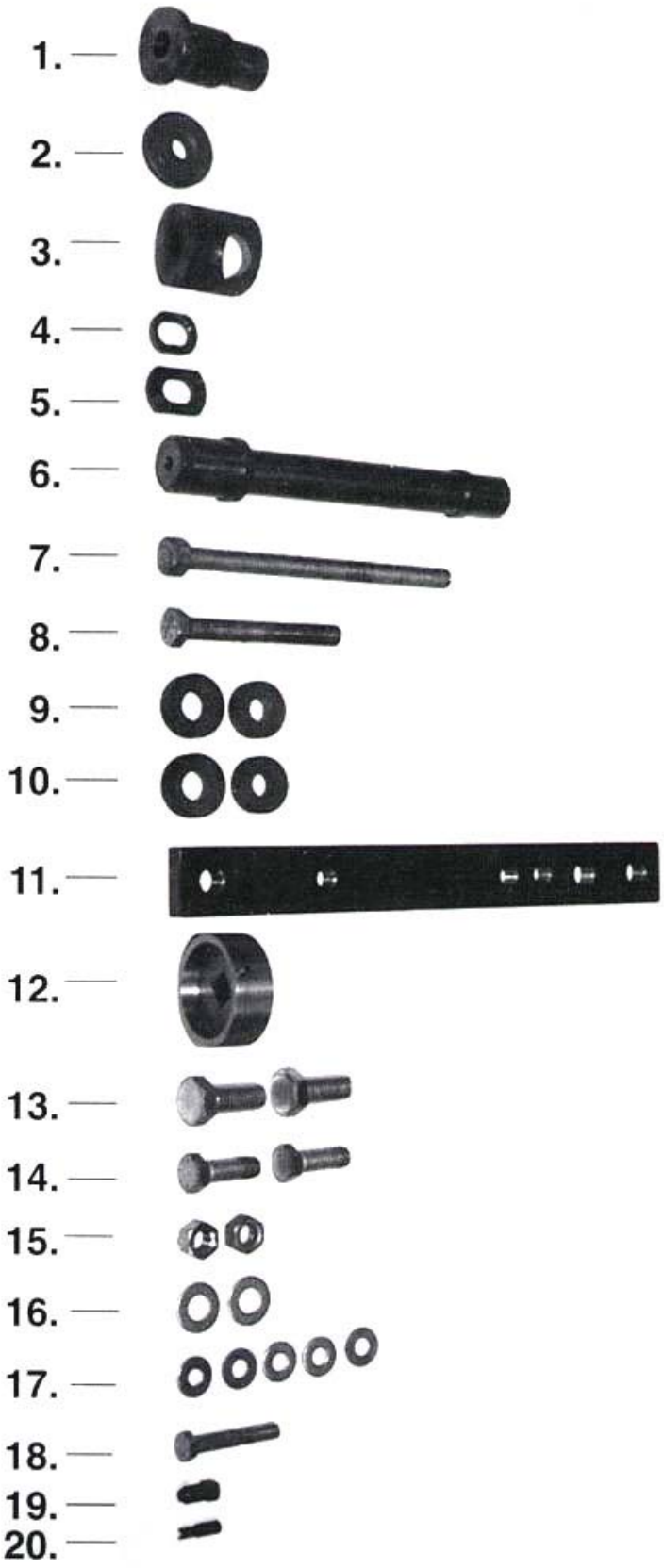


Figure 36. Rebuild Kit

Juicing Parts, 060-00099-F

Item	Qty	Part Number	Description	
1	1	060-00103	Drive Assembly (Details See Pages-54-55**)**	
2	2	004-352-410	Screw, Cap, Hex, 3/8-16 x 2-1/4", S.S.	
3	2	004-816-080	Washer, Plain Narrow, 3/8",S.S.	
4	1	060-00056	U.C. Drive Cover Plate	
5	3	060-00051	Spanner Screw	
6	1	060-00043	Hopper Assembly, ABS	
6	1	060-00043-01	Hopper Assembly, SS	
7	1	060-00118	Cover Assembly, ABS (Details See Pages 62-63)	
7	1	060-01001	Cover Assembly, Stainless Steel (Details See Pages 66-67)	
8	1	060-00038	Lift, Fruit, FDA Material	
9	1	060-00028	Guide, Fruit, FDA Grade	
10	1	060-00004	Cup, Lower	
11	2	060-00098	Spanner Nut	
12	2	060-00109	Stud, Cup, Lower	
13	1	060-00225	Cutter With Screw	
14	1	004-406-003	Screw, Mach, Round, 4-40 x 3/16,S.S.	
15	1	060-00108	Manifold, Juice	
16	1	007-486-119	O-Ring, Nozzle, 1 x 1-1/8 x 1/16	
17	2	004-352-398	Screw, Cap, Hex, 3/8-16 x 1-1/4", S.S.	
18	1	060-00022	Nozzle, Straight , Plastic	
18a	1	060-01059	Nozzle, SS, 90° Bend, Jamba	
19	2	060-00068	Bearing, Fruit Lift	
20	1	060-00086	Tube, Strainer, .033	
20a	1	060-00208	Tube, Strainer, .040	
20b	1	060-00230	Tube, Strainer ,.055	
21	1	060-00055	Plate, Orifice Drive, FDA Grade	
22	1	060-00008-1	Tube, Orifice	
26	1	060-00077	Tool, Wrench	(Not Shown)
30	1	009-092-018	Cap, Cover for Cutter	(Not Shown)
31	1	060-00121	Warning Label, Shear, Hopper	
32	2	060-00192	Pin, Manifold Locator	
33	2	004-100-018	Nut, Acorn, 3/8-16, SS	
34	2	004-806-070	Washer, Lock, 3/8", SS	
			Parts for Small Fruit	
	1	060-00088	Restrictor, Fruit Hole, Small Fruit	(Not Shown)
	2	060-01069	Guide Block, Small Fruit	(Not Shown)
	1	060-01066	Restrictor, Hopper Side, Small Fruit	(Not Shown)
	1	060-01067	Restrictor, Juicing Side, Small Fruit	(Not Shown)

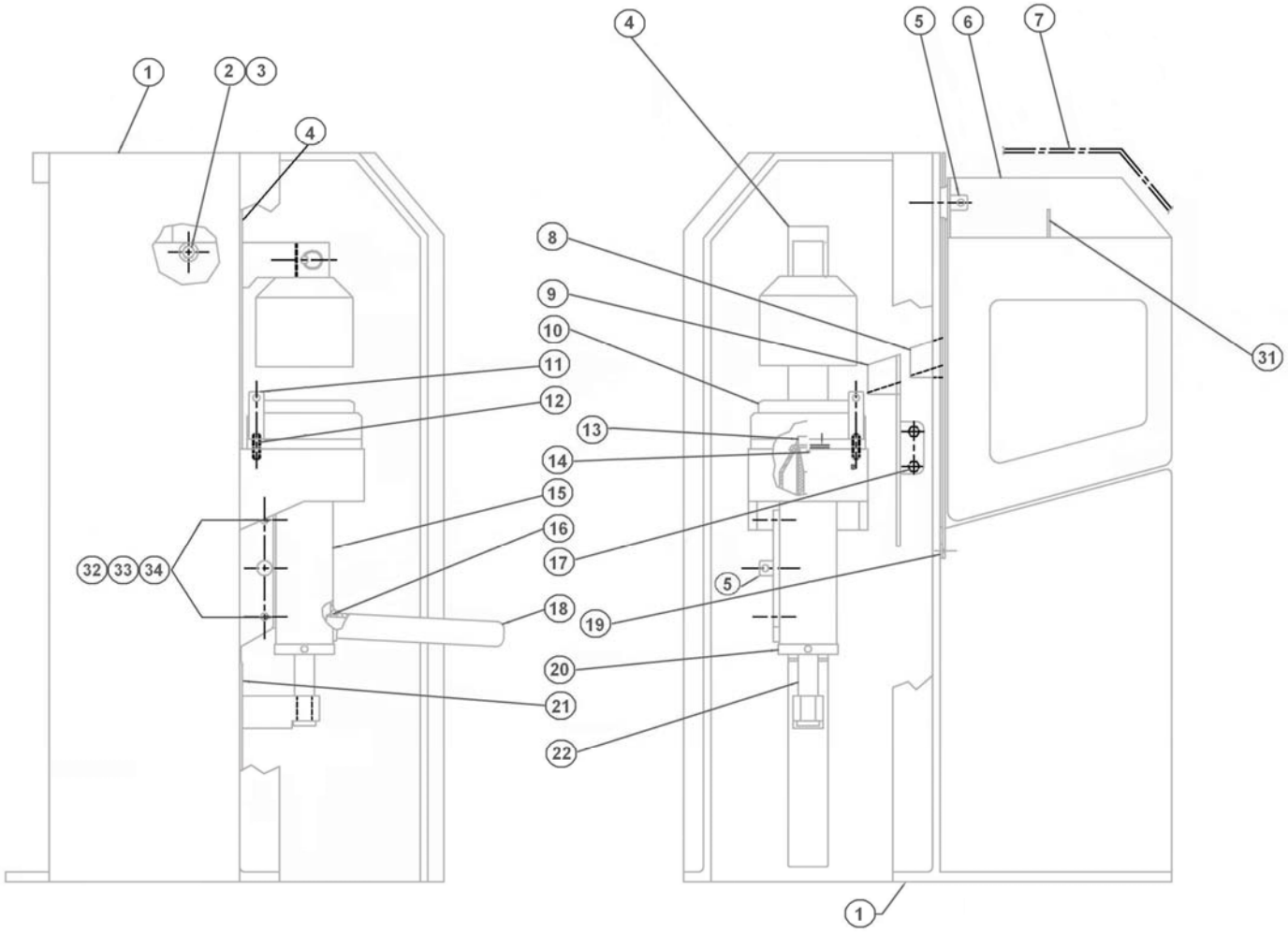


Figure 37. Juicing Parts

Hopper Assembly Parts, 060-00043-F

Item	Qty	Part Number	Description
1	1	060-00042	Hopper
2	1	060-00019	Trough
3	1	060-00018	Divider
4	7	004-260-018	Rivet, Blind, 3/16 x 5/16 Grip (7/16 lg), S.S.
5	1	060-00089	Button, Hopper Bump
6	2	004-260-015	Rivet, Blind, 3/16 x 1/4 Grip (13/32 lg), S.S.

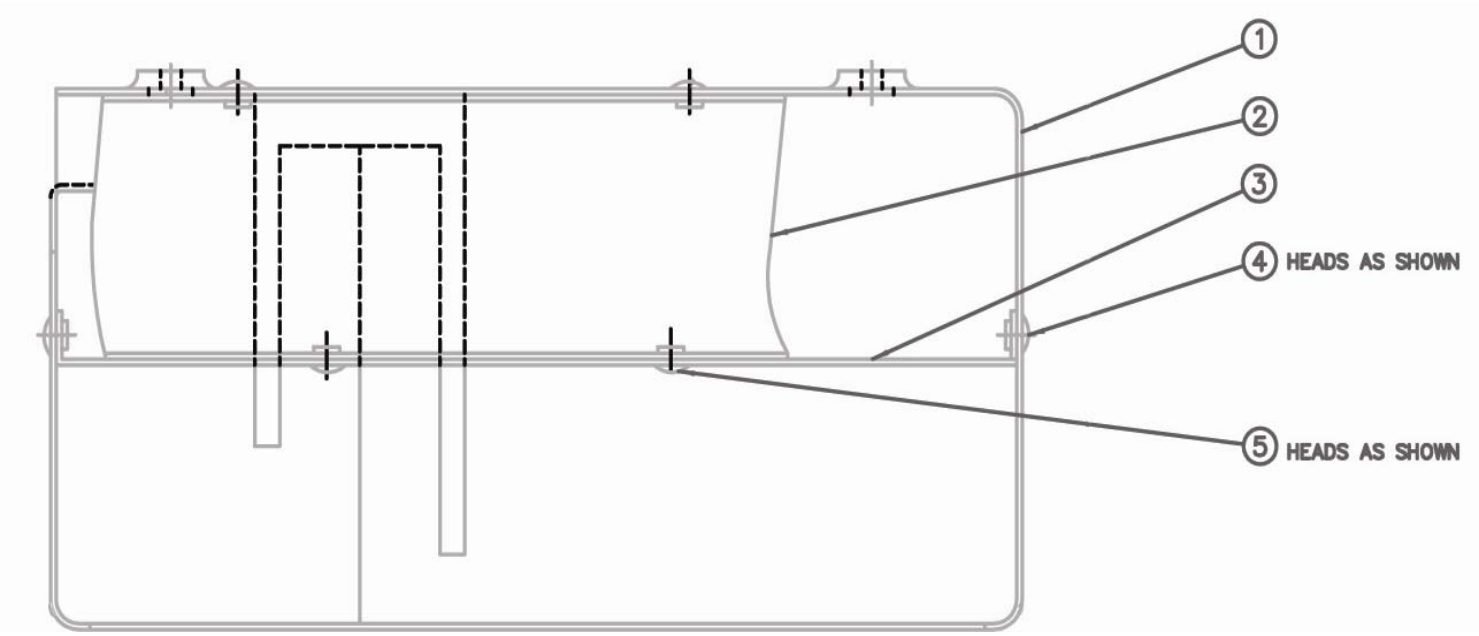


Figure 38. Hopper Assembly Parts

Drive Parts, 060-00103-F

Item	Qty	Part Number	Description
1	1	005-220-145	Chain, #60 x 60-3/4" Lg (81 Links)
2	1	005-221-291	Link, Connecting For #60
3	1	060-00034	Electrical Assembly (Details See Pages 68-69)
4	1	005-806-227	Sprocket, 60B14, Set Screw (for motor)
5	4	004-352-404	Screw, Cap, Hex, 3/8-16 x 1-3/4"
6	4	004-806-070	Washer, Lock Reg, 3/8", S.S.
7	4	004-816-080	Washer, Plain Narrow, 3/8", S.S.
8	1	060-00117	Frame & Stand Assembly (Details See Pages 60-61)
9	2	060-00064	Shaft, Linear, Upper
10	1	060-00116	Upper Drive Arm Assembly (Details See Page 56)
11	1	060-00010	U.C. Drive Arm Sprocket, Upper Cup
12	3	004-355-116	Screw, Cap, Socket, 3/8-16 x 2"
13	2	005-098-113	Washer, Thrust, 1-1/4"
14	1	060-00062	Shaft, Rotary Drive, Upper
15	2	005-576-249	Key, Sq, 1/4" x 1-1/2", S.S.
16	1	060-00065	Sprocket, Drive, Orifice
17	2	005-098-112	Washer, Thrust, 1"
18		005-576-242	Key, Sq, 1/4" x 1", S.S.
19	11	004-405-131	Screw, Cap, Socket, 3/8-16 x 3/4"
20	1	060-00061	Shaft , Rotary Drive, Lower
21	1	005-576-061	Key, Sq, 1/4" x 3/4", S.S.
22	1	005-576-246	Key, Sq, 1/4" x 1-1/4", S.S.
23	1	060-00115	Orifice Drive Arm Assembly (Details See Page 58)
24	1	060-00063	Shaft, Linear Orifice Drive
25	2	004-541-111	Screw, Set, Socket, 5/16-18 x 3/4", S.S. (for Motor Sprocket)

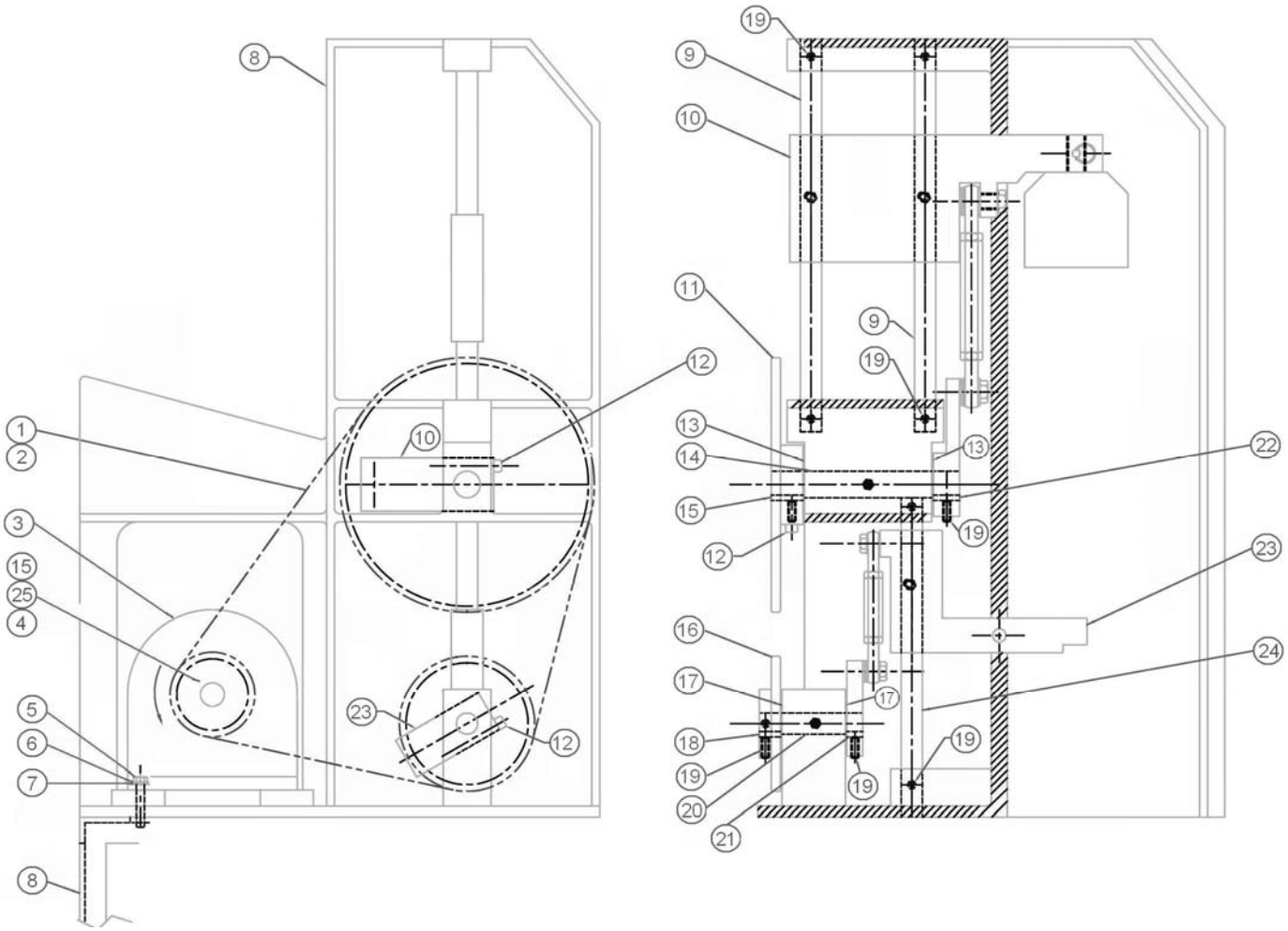


Figure 39. Drive Parts

Upper Drive Arm Assembly Parts, 060-00116-C

Item	Qty	Part Number	Description
1	1	060-00030	Arm, Upper Drive (this part includes items 1a & 1b)
1a	2	007-120-205	Fitting, Grease, 1/4"-28, 45°
1b	4	005-098-731	Bearing, 1" x 1"
2	1	004-226-039	Pin, Faspin, 3/8 x 1-5/8"
3	1	060-00027	Cup, Upper
4	1	004-352-661	Screw, Cap, Hex, 5/8-11 x 2-1/2"
5	1	060-00057	Lock, Rod End
6	1	060-00114	Rod End Assembly, Upper Cup Drive (Details See Page 57)
7	1	060-00078	Screw, Upper Cup Crank, LH
8	4	004-816-120	Washer, Plain Narrow, 5/8
9	1	060-00009	Crank, Upper Cup Drive

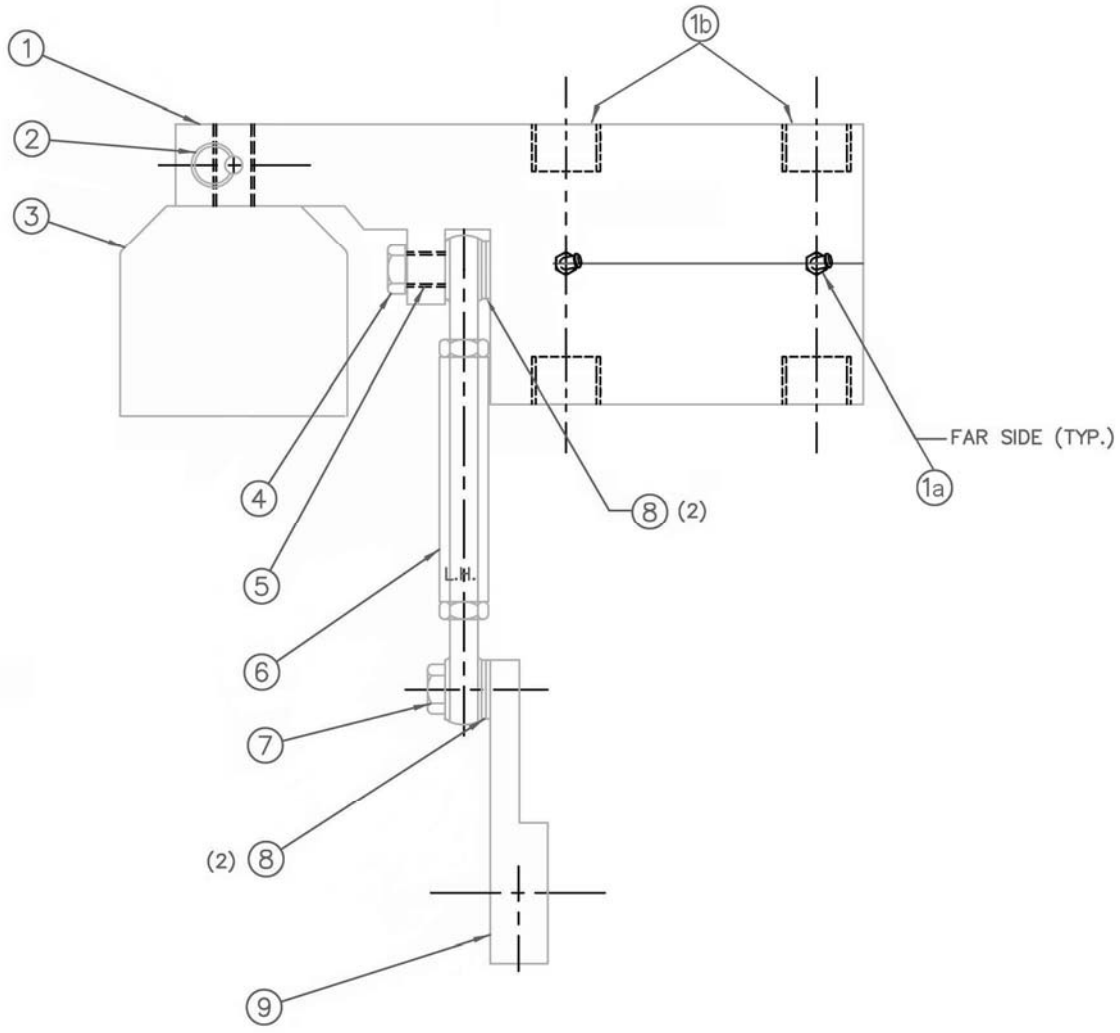


Figure 40. Upper Drive Arm Assembly Parts

Rod End Assembly, Upper Cup Drive, Parts 060-00114-B

Item	Qty	Part Number	Description
1	1	005-098-729	Rod End, RH, 5/8",
2	1	004-116-046	Nut, Jam Hex, 5/8-18, S.S.
3	1	060-00060	Linkage, Cup Drive
4	1	004-116-047	Nut, Jam Hex LH, 5/8-18, S.S.
5	1	005-098-730	Rod End, LH, 5/8"

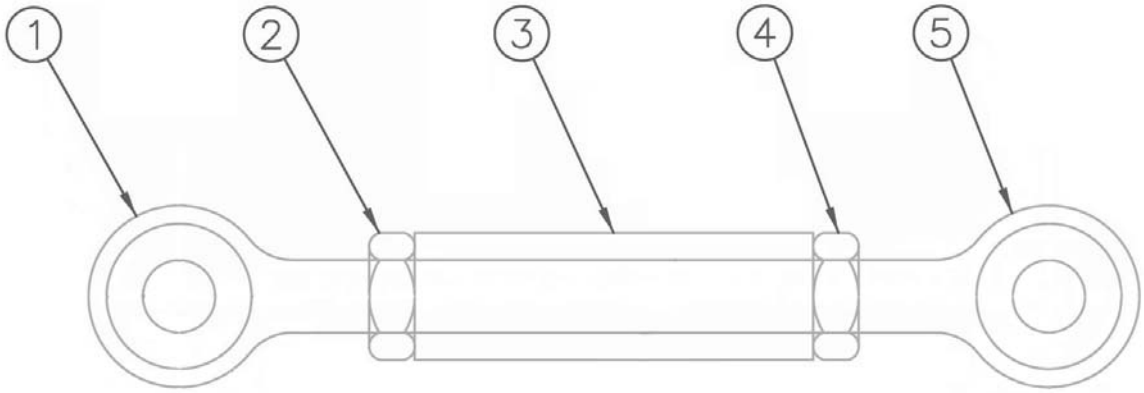


Figure 41. Rod End Assembly, Upper Cup Drive

Orifice Drive Arm Assembly Parts, 060-00115-C

Item	Qty	Part Number	Description
1	1	060-00058	Orifice Crank Arm
2	2	004-816-100	Washer, Plain Narrow, 1/2, S.S.
3	1	004-352-572	Screw, Cap, Hex , LH
4	1	060-00113	Rod End Assembly, Orifice Drive (Details See page 59)
5	1	004-352-571	Screw, Cap, Hex, 1/2-13 x 1-1/2"
6	1	060-00011	Arm ,Orifice Tube Drive (this part includes items 6a & 6b)
6a	1	007-120-205	Fitting, Grease, 1/4"-28, 45°
6b	2	005-098-731	Bearing, 1" x 1"
7	2	060-00068	Bearing, Fruit Lift

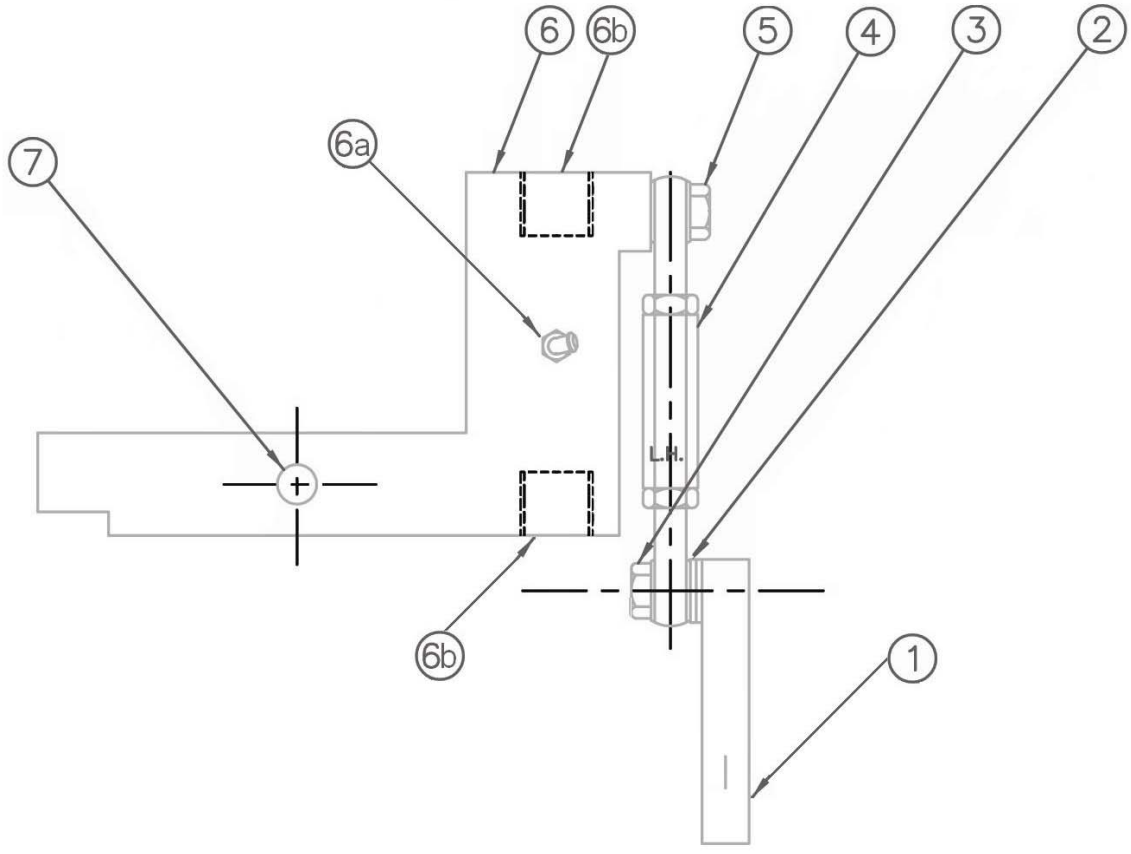


Figure 42. Orifice Drive Arm Assembly Parts

Rod End Assembly, Orifice Drive, Parts, 060-00113-B

Item	Qty	Part Number	Description
1	1	005-098-727	Rod End, Male, RH
2	1	004-116-037	Nut, Jam Hex, 1/2-20
3	1	060-00059	Linkage, Orifice Drive
4	1	004-116-038	Nut, Jam Hex LH, 1/2-20
5	1	005-098-728	Rod End, Male LH, 1/2"

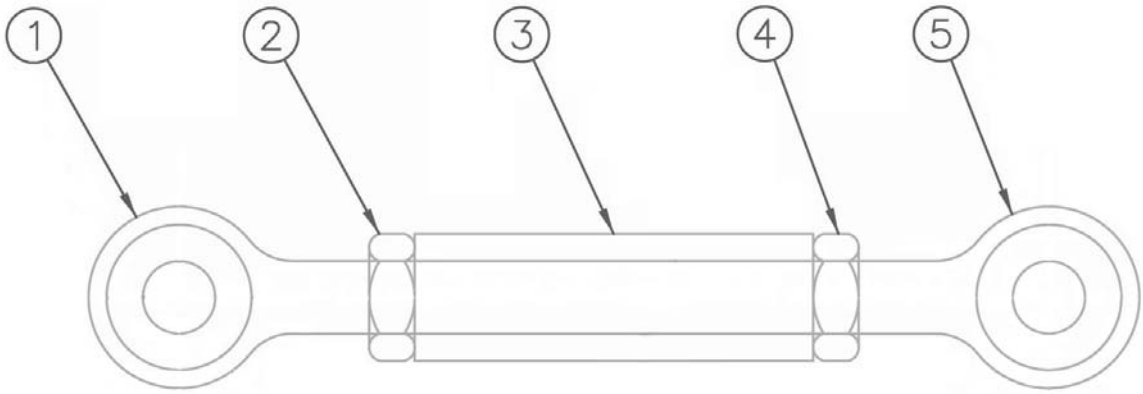


Figure 43. Rod End Assembly, Orifice Drive, Parts

Frame & Stand Assembly Parts, 060-00117-D

Item	Qty	Part Number	Description	
1	1	060-00101	Frame (The frame contains items 1a, 1b & 1c)	
1a	2	007-120-203	Fitting, Grease, 1/4"-28, Straight	(Not Shown)
1b	2	005-098-731	Bearing, 1" x 1	(Not Shown)
1c	2	005-098-732	Bearing,1-1/4" x 1-1/4"	(Not Shown)
2	1	060-00048	Stand	
3	2	009-080-526	Caster, Swivel, 4"	
5	5	004-352-392	Screw, Cap, Hex, 3/8-16 x 7/8"	
6	4	004-111-022	Nut, Hex, #10-24, S.S.	
7	4	004-461-025	Hook	
12	2	009-080-527	Caster, Rigid, 4"	
13	1	060-00079	Locator, Waste Bin	
14	16	004-111-040	Nut, Hex, 5/16-18, S.S.	
15	18	004-816-070	Washer, Plain Narrow, 5/16, S.S.	
16	22	004-352-315	Screw, Cap, Hex, 5/16-18 x 3/4"	

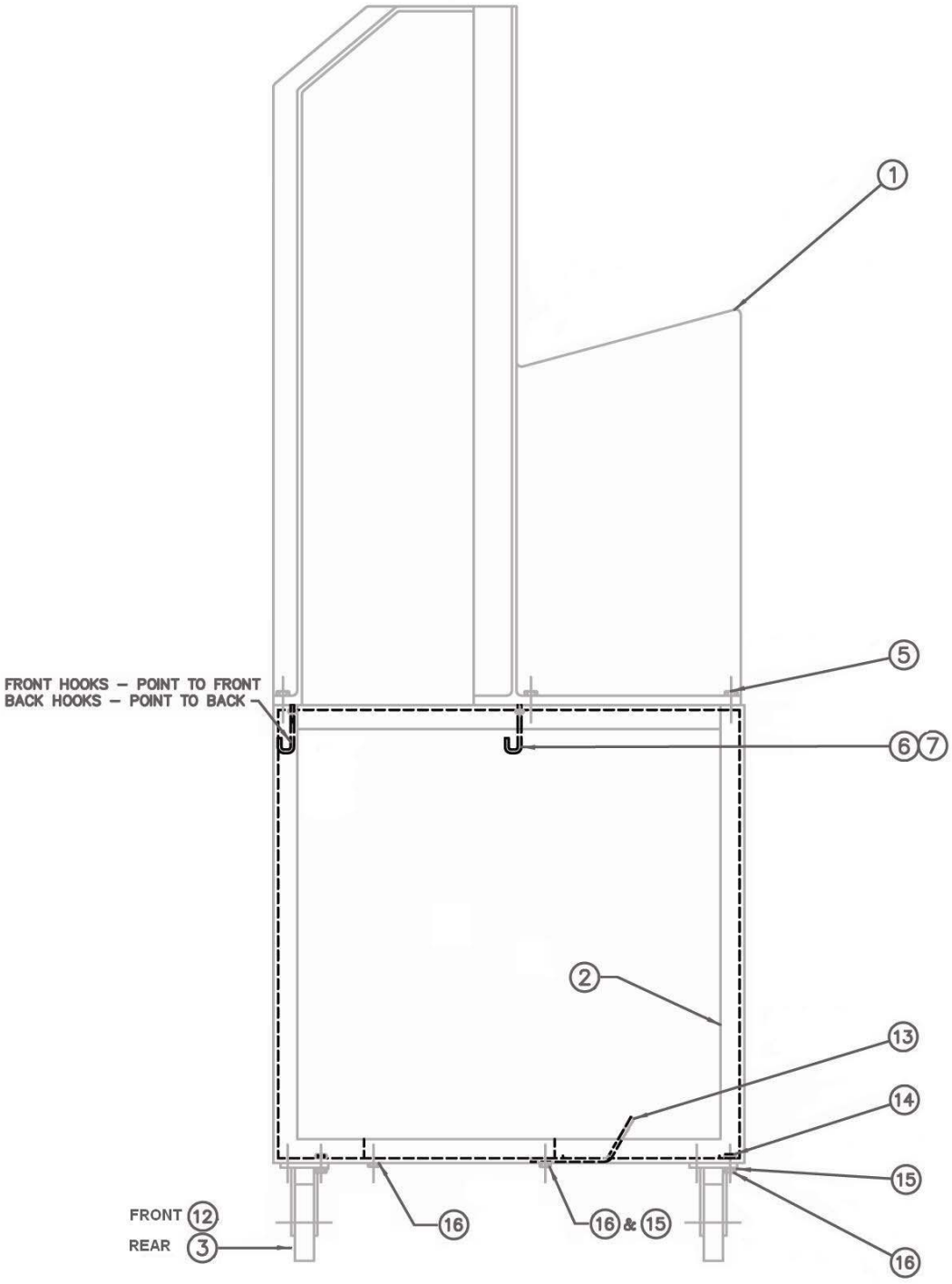


Figure 44. Frame & Stand Assembly Parts

Cover Assembly Parts, ABS, 060-00118-F

Item	Qty	Part Number	Description
1	1	060-00044	Cover, Drive, UL #R597016
2	1	060-01054	Shield, Splatter, Assembly, 90° Bend (Details See Page 64)
		060-00111	Shield, Splatter, Curved (Obsolete-Old Style)
3	1	060-00045	Cover, Juice Components, UL #R597016
4	1	060-00123	Clip, Latch
5	24	004-401-022	Screw, Mach Truss, Nylok, #10-24 x 3/8" Phillips
6	2	060-00110	Plug, Hopper, UL #R597016
7	2	060-00071	Hinge, Cover, Front, Male
8	4	004-816-060	Washer, Plain Narrow 1/4", S.S.
9	1	060-00025	Reservoir Lid, FDA Material
10	1	060-00107	Stirrer, Reservoir
11	1	060-00036	Reservoir, Juice, FDA Material
12	1	060-00162	Faucet
13	14	004-401-026	Screw, Mach Truss, #10-24 x 5/8" Phillips
14	1	060-00047	Cover, Door Stand, UL #R597016
15	1	060-00035	Cover, Main Stand, UL #R597016
16	2	060-00097	Pin, Reservoir Holder
17	1	060-00032	Cover, Hopper, UL #R597016
18	1	060-00033	Cover, Back, UL #R597016
19	1	060-00046	Cover, Switch, UL #R597016
20	1	060-00090	Spacer, Switch Cover
21	1	015-03939	Name Plate
22	8	004-265-016	Rivet, Pop,1/8 Dia x 1/4 Grip
23	1	015-03937	Patent Plate
24	1	009-092-022	Container, 19-1/2" x 23-1/2" x 13"
26	1	060-00148	Decal, “Install Trash Bag On Hooks Before Juicing”
27	1	060-00120	Decal, Warning Sign
28	6	060-00125	Retainer, Back Cover
29	2	004-816-052	Washer, Plain, #10, S.S.
*30	1	009-210-013	Float, Cyl,1-1/2 x 2-5/8, Polyp
*31	1	060-00137	Frame, Reservoir Float, Pivot
*32	1	060-00140	Magnet Holder, Reservoir
*33	1	006-210-291	Magnet, Proximity
34	1	009-080-050	Bumper, Stem Type, 5/8" x 15/16"
35	2	006-200-267	Switch, Safety, Schmersal
36	2	007-143-395	Strain Relief Fitting
37	4	004-392-175	Screw, Mach Pan Head, #8-32 x 3/4", S.S.
38	1	060-02059	Button, Threaded
39	1	004-401-024	Screw, Mach, Truss #10-24 x 1/2", S.S. (Phillips)
40	2	009-654-003	Holder, Wire
41	3	006-270-141	Tie, Wire
42	1	004-385-012	Screw, Flat Head, #6-32 x 3/4", S.S.
44	4	004-392-174	Screw, Mach Pan Head, #8-32 x 1/2", S.S.
45	2	060-00524	Strip, Backing
46	1	060-00121	Decal, Warning Sign
47	2	006-200-489	Funnel Adapter with Long Key
48	1	007-160-029	Grommet, 7/16 Dia Hole x 15/16 OD **Use on S.S. Covers Only**
49	1	009-097-002	Cable Tie Holder
50	2	004-136-021	Nut, Hex, Flanged, Serrated, #8-32, S.S.
51	2	004-385-028	Screw, Flat Head, #6-32 x 3/8", S.S.
52	2	004-356-013	Screw, Socket Head, Cap, Button Head, #10-24 x 1", S.S.
53	4	004-806-030	Washer, Lock, #10, S.S.
			Covers, Items 3, 14, 17, & 18 Include the Following Parts:
	4	009-425-019	Latch, Spring Toolhead, Southco #57-T-10 (items 3, 14, 17 & 18)
	6		Rivet, Blind,1/8 Dia x 3/8, Alum. (Items 3, 17 & 18)
	2		Rivet, Blind,1/8 Dia x 1/4, Alum. (item 14 only)
			Covers, Items 3, 14, & 17 Include the Following Hinges:
	1	060-00073	Hinge, Cover, Hopper (Quantity of (1) on Item 17 above)
	2	060-00072	Hinge, Front Cover, Female (Quantity of (2) on Item 3 above)
	1	060-00080	Hinge ,Door, Stand (Quantity of (1) on Item 14 above)

*** Machines equipped with high level switches**

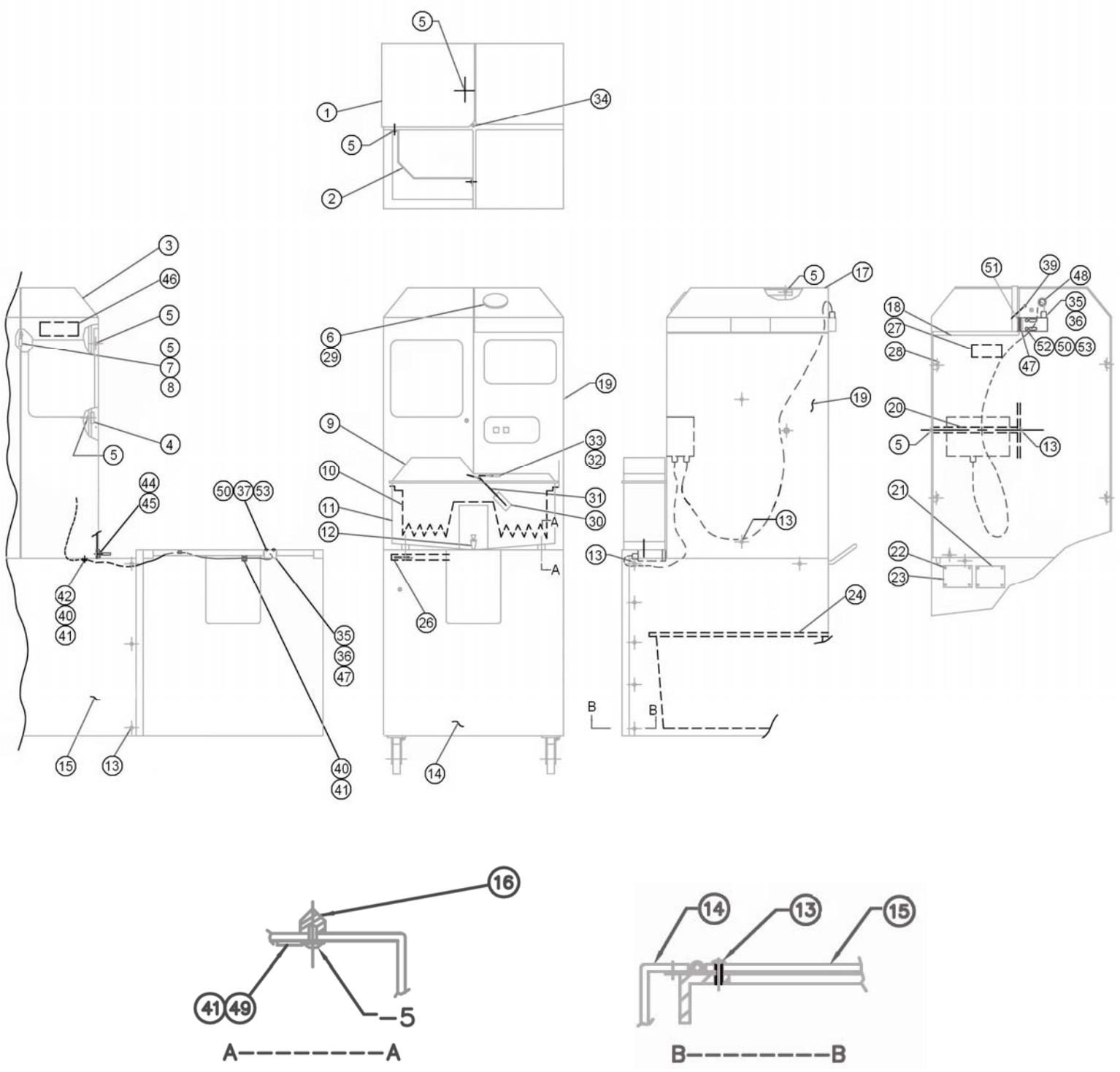


Figure 45. Cover Assembly Parts, ABS

Splash Shield Assembly Parts, 060-01054-B

Item	Qty	Part Number	Description
1	1	060-01025	Shield, Clear
2	1	060-01024	Bracket, Clear Shield, RH
3	1	060-01024-01	Bracket, Clear Shield, LH
4	4	004-401-022	Screw, Mach Truss, Nylok, Phil, 10-24 x 3/8"
5	4	004-156-041	Nut, Hex S/L, 10-24,SS

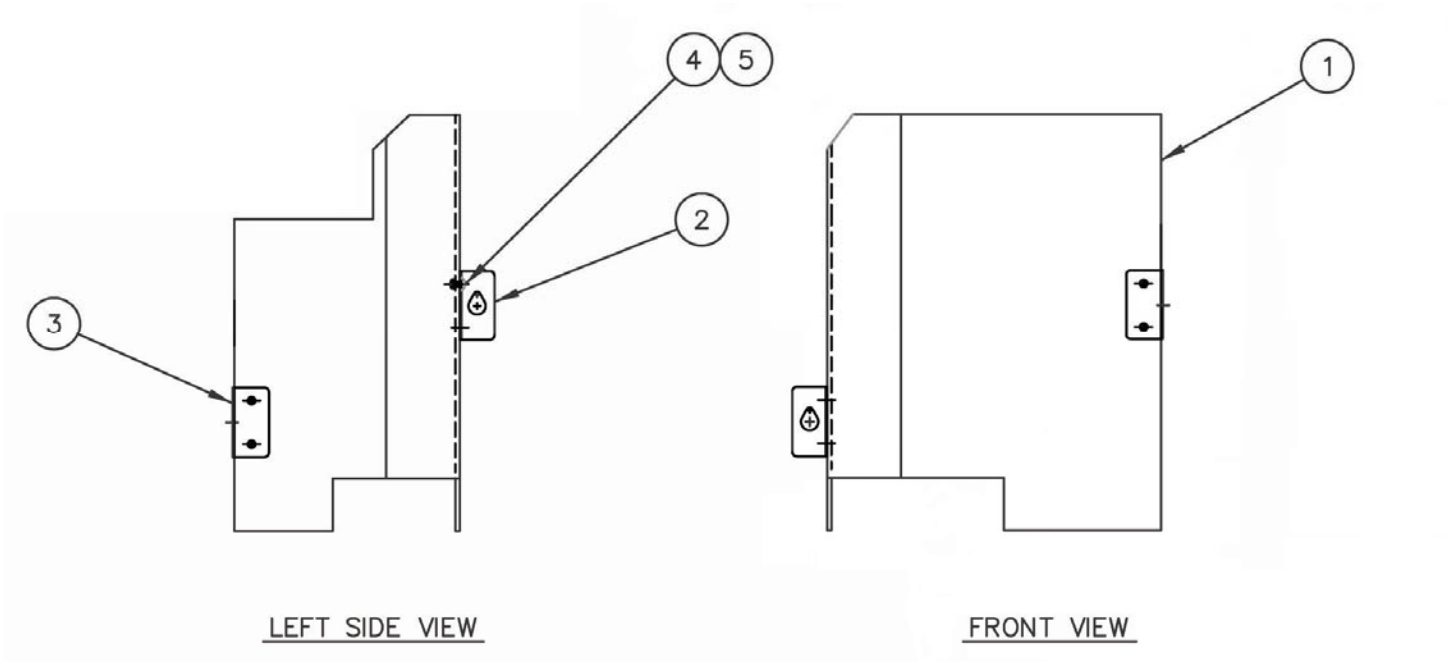


Figure 46. Splash Shield Assembly Parts

Decals, Warning Labels, Bumpers

Item	Qty	Part Number	Description
1	3	060-00120	Decal, Warning Sign (Decals on item 3, 14 & 17 Interior)
3	3	060-00121	Decal, Warning Sign ((1) on item 3, (1) on Hopper Side & (1) Back of Hopper)
4	1	009-450-040	Decal, Component Assembly Instructions (Decal on item 3)
5	1	009-450-041	Decal, Cleaning Instructions (Decal on item 18)
6	1	060-00122	Decal, Warning Sign, “Moving Juicer” (Decal on item 18)
7	1	060-00083	Label, On/Off, UL #NNP-101 (Label on item19)
8	1	060-00082	Decal, Warning Sign, “Do Not Open” (Label on item 17-Exterior)
9	3	009-450-034-01	Decal, Base Fruit, Recessed (Decals on items (1) 14 & (2) 15)
10	4	009-450-031	Decal, Logo, Fresh'n Squeeze, (Decals on items (1) 1, (1) 3 & (2) 17)
11	3	009-450-033	Decal, Roof, Fruit (Decals on items 3, 17 & 18)
12	4	009-450-035	Decal, Stripe, Red (Decals on Items 3, (2)17 &1)
13	2	060-00193-01	Bumper, Urethane x 26" Lg (Bumpers on item 15)
14	2	060-00193-03	Bumper, Front, Urethane x 7-1/2" Lg (Bumpers on item 14)

The referenced item numbers in the description above, within parenthesis refer to the item numbers on pages 62-63.

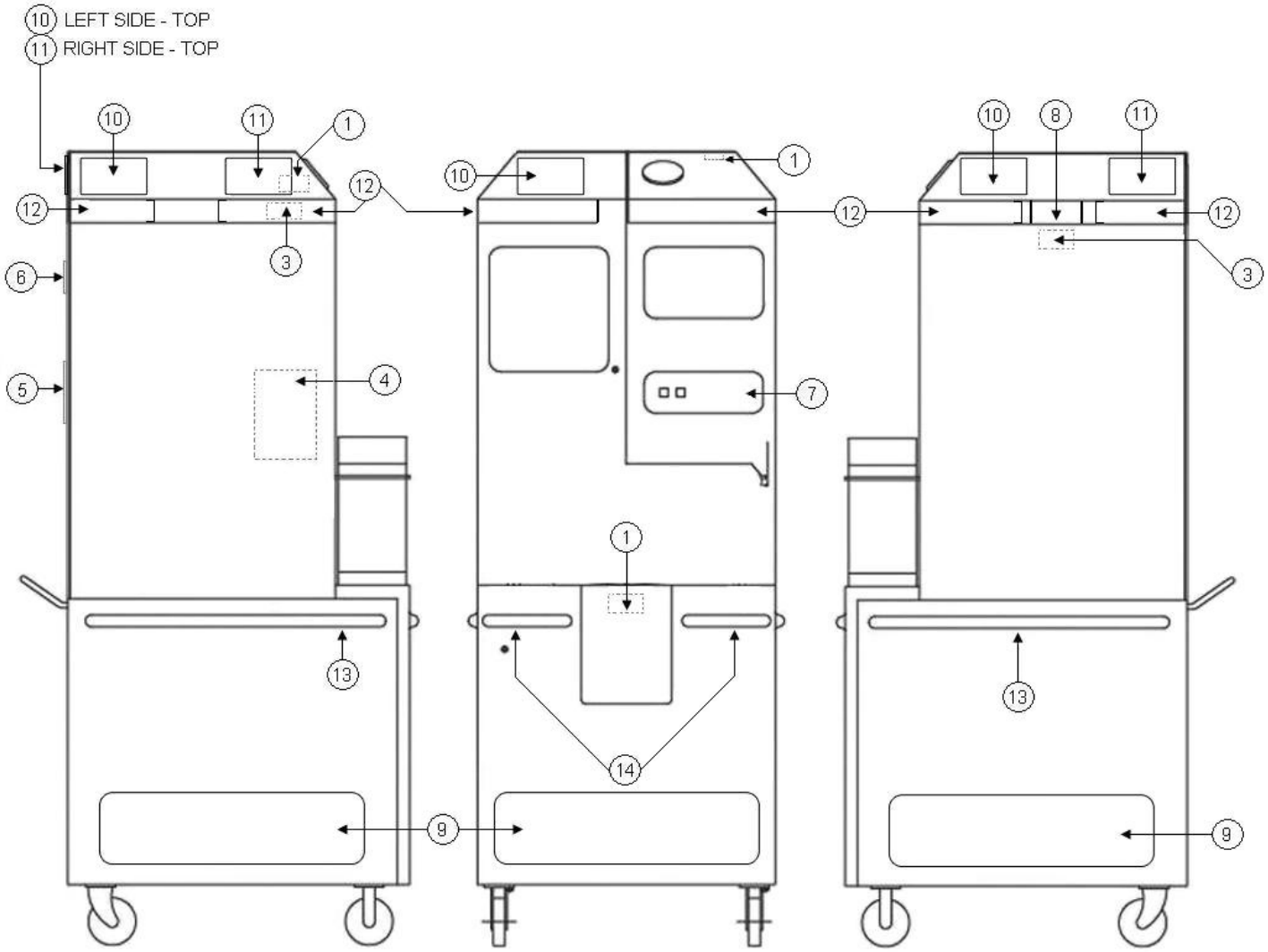


Figure 47. Decals, Warning Labels, Bumpers

Cover Assembly Parts, Stainless Steel, 060-01001-F

Item	Qty	Part Number	Description
1	1	060-01036	Hopper Modification
2	1	060-01038	Cover, Main
4	1	060-01055	Cover, Door
5	1	060-01044	Spacer, Switch Cover
6	1	060-01042	Cover, Switch
7	1	060-01041	Cover, Drive, S.S.
8	1	060-01040	Cover, Back
9	1	060-01025	Shield, Clear
10	1	060-01024	Bracket, R.H.
11	1	060-01024-01	Bracket, L.H.
12	1	060-01060	Cover, Hopper
13	1	060-01061	Cover, Juice, Assembly, S.S.
14	1	009-425-019	Latch, Spring Toolhead
15	2	060-00120	Sign, Warning ,Cover Switches
16	1	009-450-040	Assembly Instructions
17	1	009-450-041	Cleaning Instructions
18	11	004-401-022	Screw, Mach Truss, Nylok, #10-24 x 3/8" Phillips
19	4	004-156-041	Nut, S/L, #10-24, S.S.
21	1	060-00122	Sign, Warning, Moving Juicer
22	1	015-03937	Patent Plate
23	1	015-03944	Name Plate
24	10	004-265-017	Rivet, Pop,1/8 Dia x 1/8 Grip
25	6	060-00125	Retainer, Back Cover
26	1	009-097-002	Cable Tie Holder
28	1	060-05058	Key Ring & Key (Not Shown)
29	1	060-00083	Label, On/Off
30	1	060-00121	Warning Label, Shear, Hopper
31	2	060-00097	Pin, Reservoir Holder
32	1	009-080-050	Bumper, Stem Type, 5/8" x 15/16"
			Covers, Items 4, 12, & 13 Include the Following Parts:
	3	009-425-019	Latch, Spring Toolhead, Southco #57-T-10 (Items 4, 12 & 13)
	4		Rivet, Blind,1/8 Dia x 3/8, Alum. (Items 12 & 13)
	2	004-265-017	Rivet, Pop,1/8 Dia x 1/8 Grip (Item 4 only)
			Covers, Items 4, 12, & 13 Include the Following Hinges:
	1	060-00080	Hinge ,Door, Stand (Hinge, Quantity of (1) on Item 4)
	1	060-00073	Hinge, Cover, Hopper (Hinge, Quantity of (1) on Item 12)
	2	060-00072	Hinge, Front Cover, Female (Hinges, Quantity of (2) on Item 13)

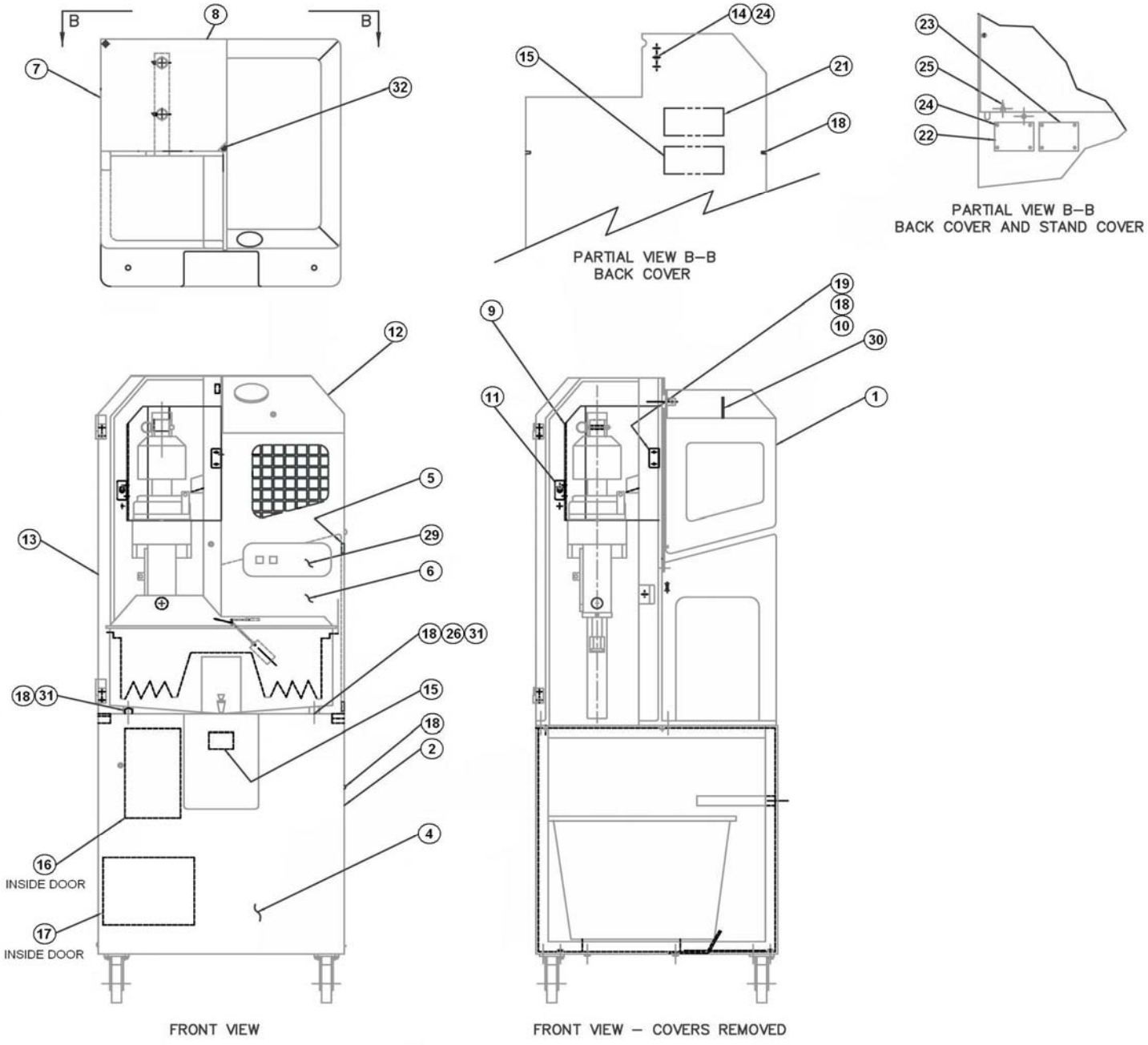


Figure 48. Cover Assembly Parts, Stainless Steel

Electrical Parts, 060-00034-D

Item	Qty	Part Number	Description	
			110 Volt Parts	
1	4	004-401-022	Screw, Mach, Truss #10-24 x 3/8", SS (Phillips)	
2	2	004-440-004	Screw, Tap “F” #6-32 x 3/8", SS (Phillips)	(Not Shown)
3	1	060-00076	Switch Plate	
6	1	060-00168	Electrical Box Assembly (115 V)	
7	1	006-061-003	Wire Nut #74-B	(Not Shown)
*8	1	060-00141	Switch Bracket	
9	1	060-00106	Motor Assembly	
10	1	006-220-014	Terminal #10 Ring End For 10-12 Ga	
11	1	060-00096-03	Wire, 20 Ga. x 5" Lg., White	(Not Shown)
*12	1	006-210-290	Prox Switch, NC, With Gray Leads	
13	1	060-00094	Supply Wire	
14	1	060-00527	Cable (Back Cover)	
15	1	060-00527-01	Cable (Cart Door)	
			220 Volt Parts	
1	4	004-401-022	Screw, Mach, Truss #10-24 x 3/8", SS (Phillips)	
2	2	004-440-004	Screw, Tap “F” #6-32 x 3/8", SS (Phillips)	
3	1	060-00076	Switch Plate	
6	1	060-00169	Electrical Box Assembly (220v – 50 Hz)	
*8	1	060-00141	Switch Bracket	
9	1	060-00196	Motor Assembly (220 V – 50 Hz)	
10	1	006-220-004	Terminal #10 Ring End For 14-16 Ga.	
*12	1	006-210-290	Prox Switch, NC, With Gray Leads	
13	1	060-00198	Supply Wire (220 V 50 Hz)	
14	1	060-00525	Cable (Back Cover)	
15	1	060-00525-01	Cable (Cart Door)	
16	1		Plug (Depends On Machine Destination)	(Not Shown)

*** Machines equipped with high level switches, all others have two prox switches on juicing cover.**

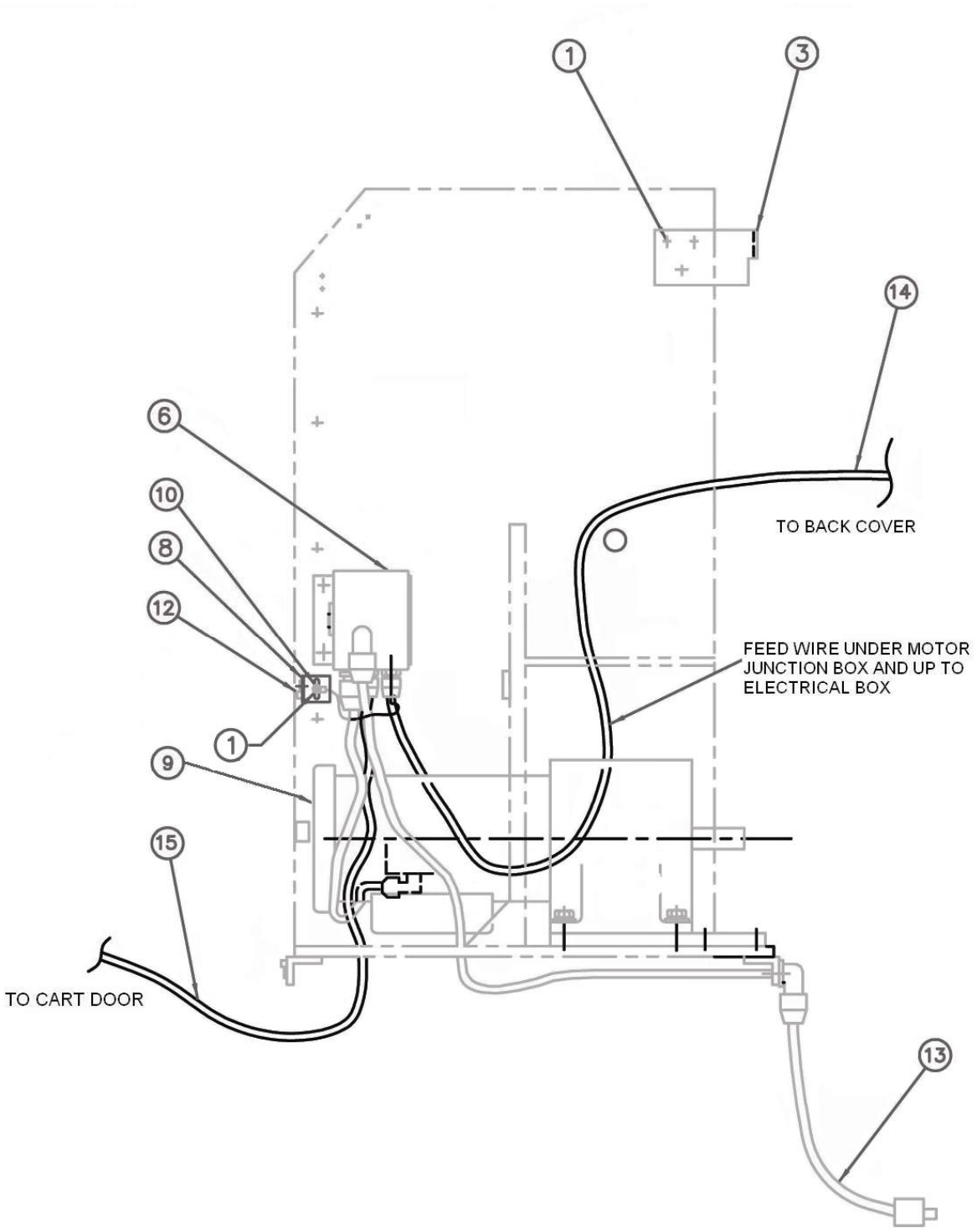


Figure 49. Electrical Parts

Electrical Box Assembly Parts (115 Volt), 060-00168-C

Item	Qty	Part Number	Description
1	1	060-00167	Electrical Box, Sprecher-Schuh M.S.
2	1	006-040-062	Under volt Release “Sprecher-Schuh” KT3-25-UA-110
3	1	006-190-054	Manual Starter “Sprecher-Schuh” KTA3-25-16A
4	2	007-146-010	Nut, Tru-Seal, 1/2 NPT
5	2	007-486-118	Sealing Ring Hubbell #20509001
6	1	006-060-044	Cord Conn. T&B #2682 (1/2 NPT -90°)
7	1	060-00538	Switch Diaphragm
8	1	006-221-066	Terminal Block, Curtis #1505 W
9	2	006-060-074	Cord Conn. T&B #2671 (3/8 NPT –Straight)
10	2	007-146-009	Nut, Tru-Seal, 3/8 NPT
11	1	060-00074	Panel
12	2	004-397-137	Screw, Mach, Round, #10-24 x 3/8", S.S.
13	1	060-00075	Box Mounting Plate
14	8	004-397-077	Screw, Mach, Round, #8-32 x 1/2", S.S.
15	2	060-00096-01	Jumper Wire, 12 Ga. x 2 1/4" Lg.
16	1	060-00537	Frame - Diaphragm
17	2	004-352-383	Screw, Cap, Hex, 3/8 -16 x 1/2", S.S.
18	2	004-816-080	Washer, Plain Narrow 3/8", S.S.
19	1	060-00165	Spacer
20	1	060-00166	Din Rail, Motor Starter Mounting
21	1	006-060-077	Cord Conn., Straight, T&B #2673 (1/2 NPT x 1/2 Dia. Cord)
22	2	004-816-052	Washer, Plain, #10, SS
23	2	007-143-396	Strain Relief Fitting
24	2	006-090-245	Plug, Snap-In, Nylon
25	4	004-430-002	Screw, #4 x 3/8" Lg. Type "B", S.S.
26	2	007-143-397	Nut, Locking, PG11

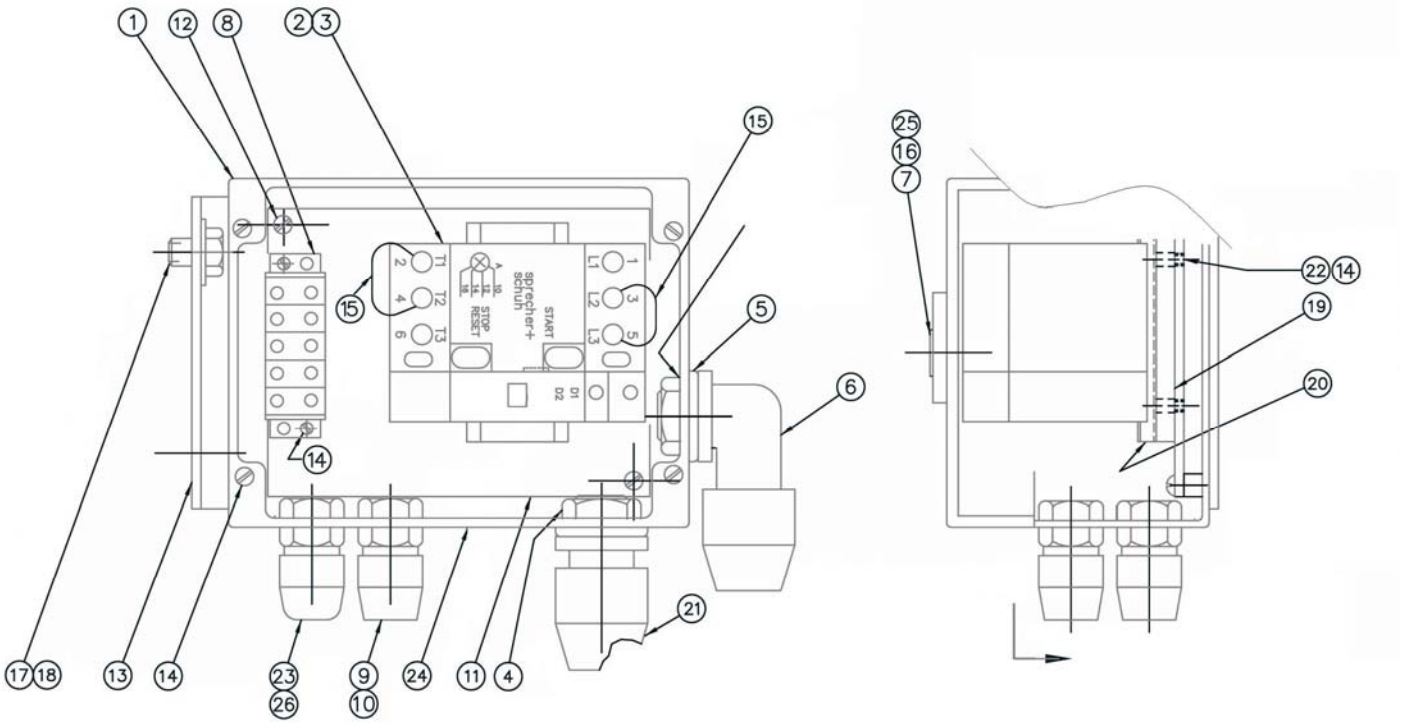
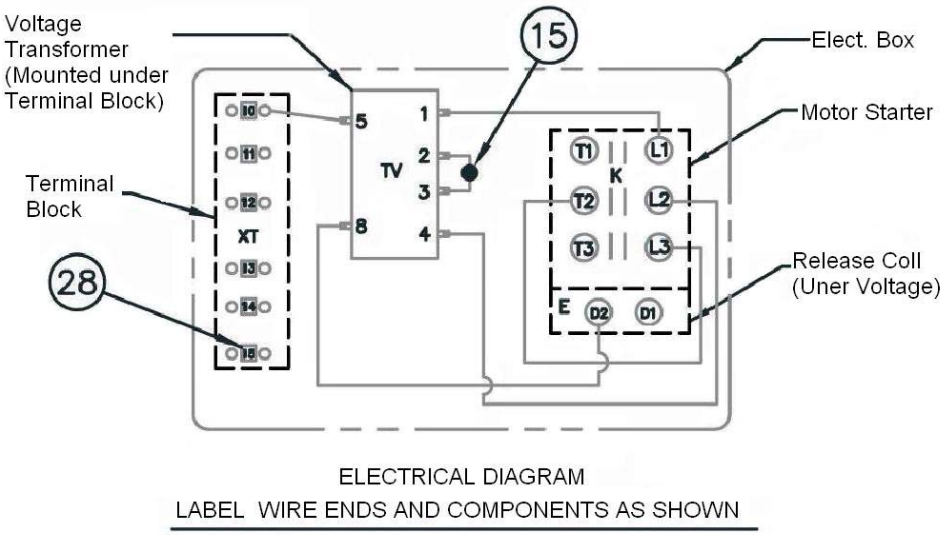


Figure 50. Electrical Box Assembly Parts (115 Volt)

Electrical Box Assembly Parts (220 Volt), 060-00169-C

Item	Qty	Part Number	Description
1	1	060-00167	Electrical Box, Sprecher-Schuh M.S.
2	1	006-040-062	Under volt Release “Sprecher-Schuh” KT3-25-UA-110
3	1	006-190-063	Manual Starter “Sprecher-Schuh” KtTA3-25-10A
4	2	007-146-010	Nut, Tru-Seal, 1/2 NPT
5	2	007-486-118	Sealing Ring Hubbell #20509001
6	1	006-060-044	Cord Conn. T&B #2682 (1/2 NPT -90°)
7	1	060-00537	Frame - Diaphragm
8	1	006-221-079	Terminal Block, Phoenix G5/6
9	2	006-060-074	Cord Connector, T&B #2671 (3/8 NPT –Straight)
10	2	007-146-009	Nut, Tru-Seal, 3/8 NPT
11	1	060-00074	Panel
12	2	004-397-137	Screw, Mach, Round, #10-24 x 3/8", S.S.
13	1	060-00075	Box Mounting Plate
14	6	004-397-077	Screw, Mach, Round, #8-32 x 1/2", S.S.
15	1	060-00096-03	Jumper Wire, 20 Ga. x 5" Lg
16	1	060-00096-02	Jumper Wire, 12 Ga. x 10" Lg
17	2	004-352-383	Screw, Cap, Hex, 3/8 -16 x 1/2", S.S.
18	2	004-816-080	Washer, Plain Narrow 3/8", S.S.
19	1	006-240-027	Transformer, Signal #DP241-4-120
20	6	006-221-081	Terminal, Fully Insul., Panduit #DNF18-206FIB-C
21	2	060-00170	Stand-Off, Terminal Strip
22	2	004-397-104	Screw, Mach, Round, #8-32 x 1-1//4" Lg, S.S.
23	1	004-397-072	Screw, Mach, Round, #8-32 x 1/4" Lg, S.S.
24	2	004-816-052	Washer, Plain, #10, S.S.
25	1	060-00165	Spacer
26	1	060-00166	Din Rail, Motor Starter Mounting
27	1	006-060-077	Cord Conn., Straight, T&B #2673 (1/2 NPT x 1/2 Dia. Cord)
28	A/R	009-455-004	Marker Pins, Phoenix #BNB, Set 10 Thru 15
29	1	060-00194	Mounting Pad – Terminal Block
30	2	004-440-001	Screw, Mach, Round Head, #4-40 x 3/4" Lg, S.S.
31	3	060-00096-07	Jumper Wire, 20 Ga. x 10" Lg.
32	A/R		Wire Markers
33	2	007-143-396	Strain Relief Fitting
34	2	006-090-245	Plug, Snap-In, Nylon
35	1	060-00538	Diaphragm - Switch
36	4	004-430-002	Screw, #4 x 3/8" Lg. Type "B", S.S.
37	2	007-143-397	Nut, Locking, PG11



ELECTRICAL DIAGRAM
LABEL WIRE ENDS AND COMPONENTS AS SHOWN

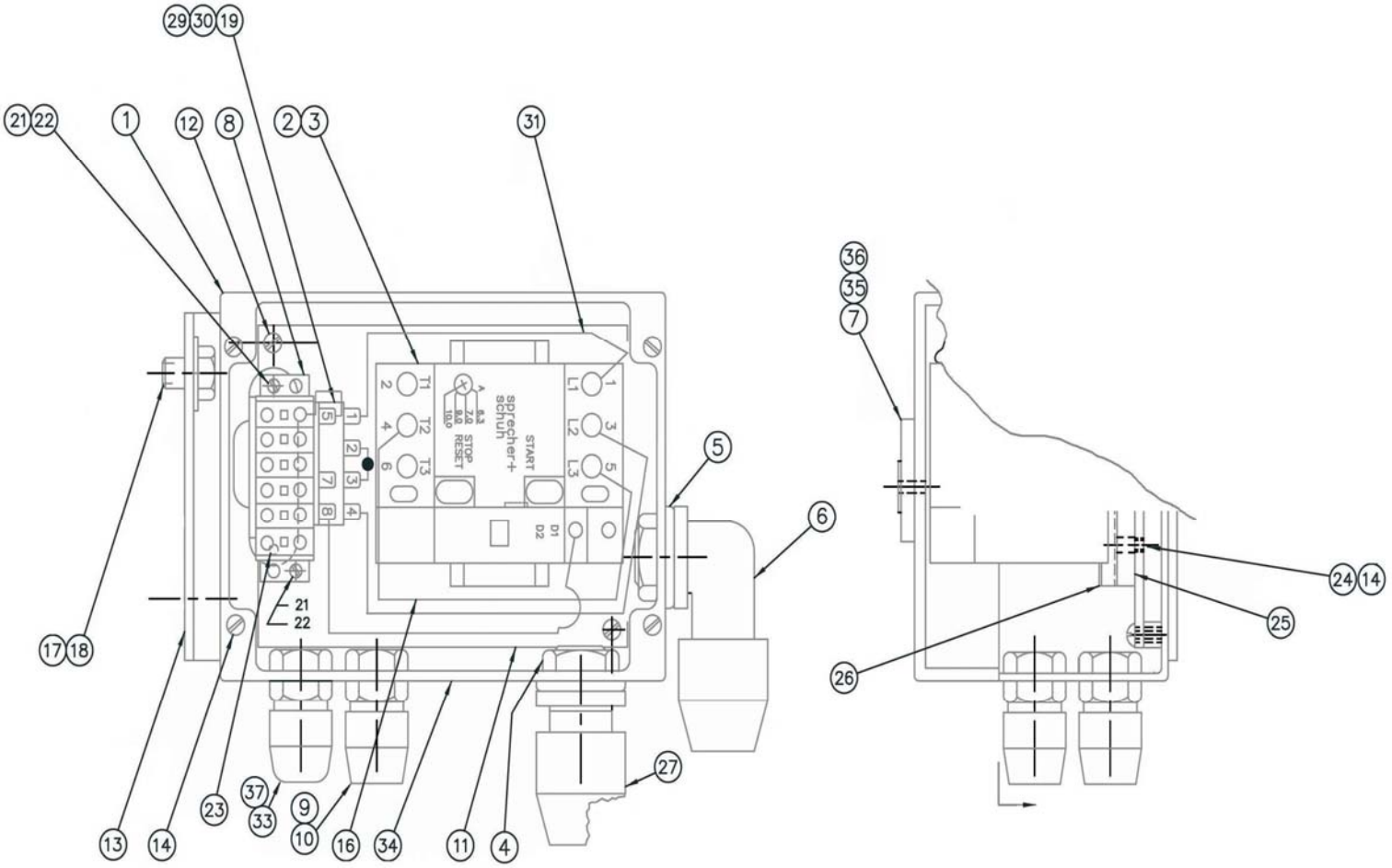


Figure 51. Electrical Box Assembly Parts (220 Volt)

Motor Assembly Parts (110Volt), 060-00106-C
Motor Assembly Parts (220Volt), 060-00196-C

Item	Qty	Part Number	Description
1	6	006-220-004	Terminal, #10 Ring End for 16-14 Ga
2	2	004-397-137	Screw, Mach. Round Head, #10-24 x 3/8, S.S.
3	2	004-111-022	Nut, Hex, #10-24, S.S.
4	1	006-090-209	Hole Plug, Hoffman #AS050 (1/2)
5	1	006-060-044	Connector, Cord, 1/2 NPT, 90°
6	1	007-486-118	Sealing Ring, Hubbell #205-09-001
7	1	007-146-010	Nut, Tru-Seal, 1/2 NPT
10	4	004-352-398	Screw, Cap, Hex, 3/8-16 x 1-1/4, S.S.
11	4	004-806-070	Washer, Lock Reg, 3/8", S.S.
13	2	060-00066	Base, Motor
14	1	007-661-052	V-Ring, Seal, C/R #400161 (5/8)
			110 Volt
8	1	060-00093	Motor Wire, 110 Volt, 60 HZ
9	1	005-617-143	Gearmotor, 1HP, 60 HZ,
12	4	004-816-080	Washer, Plain Narrow 3/8", S.S.
			220 Volt
8	1	060-00197	Motor Wire, 220 Volt, 50 HZ
9	1	005-617-144	Gearmotor, 1HP, 50 HZ,
12	8	004-816-080	Washer, Plain Narrow 3/8", S.S.

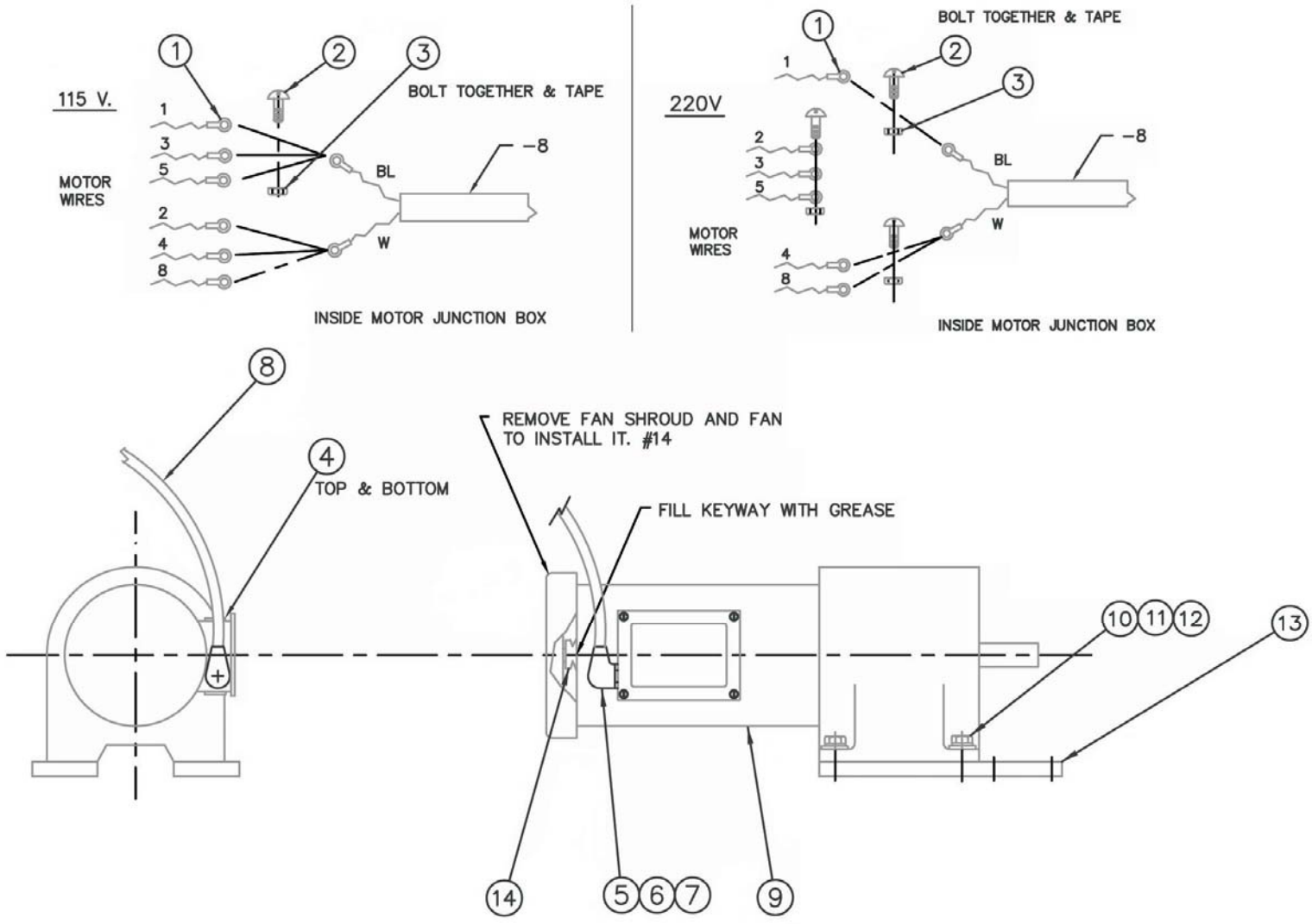


Figure 52. Motor Assembly Parts

Miscellaneous Parts

Item	Part Number	Description
1	060-00084-B	Rod, Orifice Clean Out, CJ & MFJ
2	009-080-328	Brush, 1" Dia.
3	009-080-327	Brush, Dish Type
4	060-00131	Peralkalate Cleaner 750 M
5	009-092-019	Decanter, 1 Gal, Translucent
6	009-425-020	Key, ToolHead